Tumbulgum Public School

Statement of Heritage Impact

Prepared for ADCO on behalf of School Infrastructure NSW

September 2024

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ADCO on behalf of School Infrastructure NSW

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Executive Summary

EMM Consulting Pty Ltd (EMM) have been commissioned by ADCO Constructions (ADCO) on behalf of School Infrastructure New South Wales (SINSW) to prepare a statement of heritage impact (SoHI) to support this Review of Environmental Factors (REF).

The existing buildings at Tumbulgum Public School, 11 Fawcett Street, Tumbulgum, NSW 2490 (Lots 1-10 Section 5 DP 1223; Lots 19-30 Section 5 DP 1223) were significantly inundated during the February / March 2022 floods and the structures are no longer habitable due to the damages caused by the flood waters and the existing buildings being below the targeted minimum habitable floor level for future flood resilience. As a result, the NSW Department of Education is proposing to demolish the existing school buildings and construct a new elevated school building with a minimum habitable floor level above the 1 in 500 year AEP flood event to increase flood resilience and create useable undercroft spaces.

The proposed works under this REF include:

- Site preparation including site establishment works and earthworks
- Demolition of the existing buildings
- Construction of a new elevated school building with at-grade (undercroft) amenities and storage including:
    - Ground Level:
        - Open undercroft space for covered outdoor learning and play
        - male and female amenities and accessible toilet / change room facility
        - cleaners store
        - equipment store
        - sport equipment store
    - Raised Level:
        - new administration block comprising clerical, admin, staff room, sick bay and male, female and accessible amenities
        - 2 new general learning spaces with learning commons and multipurpose space
        - new canteen facilities with open servery space
        - mechanical plant
        - store room
        - male, female and accessible amenities
        - new hard and soft landscaping

In addition, an application for a tree removal permit has been lodged with Tweed Shire Council.

The proposed demolition of Building A at Tumbulgum Public School is the most practical option due to significant challenges, including its location below flood level, and asbestos and lead contamination. Retaining and raising

the building (Option 1) would result in a considerable loss of heritage fabric and incur prohibitive costs, making it impractical. The structural modifications needed to meet flood standards and the removal of hazardous materials would severely diminish the building's historical significance.

Option 2, preserving the building as a managed ruin, was also dismissed due to its location in a flood zone, which would require costly stabilisation and flood-resistant measures. The ongoing risks posed by hazardous materials, combined with the high costs of long-term maintenance and flood damage repairs, further make this option unviable.

With this said, it is understood that the removal of Building A will have a large heritage impact on the site's fabric, spatial arrangements, and historical significance, with a major magnitude of change. The early architectural elements, including the 1891 weatherboard construction, which is significant to the school's heritage. However, raising the building to meet flood standards is impractical. The total loss of fabric is unavoidable with demolition, but incorporating heritage design elements into the new structure will help maintain a connection to the site's historical context. The removal of Building A will also result in a major magnitude of change to the setting and views, disrupting the visual continuity of the area. Despite these impacts, demolition is the most feasible option due to the high costs and safety risks associated with retaining and elevating the building.

The removal of trees such as the ANZAC Lone Pine Leopardwood (Tree #95), African Tulip (Tree #109 and Tree#110), Rainforest (Tree #60, #68, #69) Teak (Tree #111) Rainforest (Tree #190) and: Alexander Palm (Tree #191) will alter the landscape of the site, though its historical function as a school remains unchanged. This is assessed to have a slight heritage impact with a low magnitude of change. Additionally, the pruning of three trees will not affect their viability, resulting in a neutral heritage impact with a negligible magnitude of change.

The demolition represents a large heritage impact with a major magnitude of change. Despite the historical value of Building A, safety concerns and the high costs of repair make demolition the most practical solution. Although the building will be lost, the site will continue to serve its educational purpose. The new structure will uphold the school's role in the local public education system and maintain its historical association with the Tumbulgum HCA. By incorporating design elements from the original building, a connection to the past will be preserved, ensuring that the site's educational significance remains intact.

The demolition will have a large heritage impact on the curtilage and setting with a major magnitude, severing the physical and visual relationship between Building A and surrounding structures, affecting how the site is interpreted. The moderate heritage impact resulting from the moderate magnitude of change to moveable and non-moveable heritage items, such as the school sign and bell, will be mitigated by conserving and integrating these items into the new building's design.

Additionally, the new development will have minimal impact on the adjoining Tumbulgum HCA, located 76 m to the west. The assessment of the new build outlines several key impacts on the site's heritage and context. The fabric and spatial arrangements of the new development will result in a slight impact on the heritage significance of the area and the nearby Tumbulgum HCA, with a moderate magnitude of change. The design will introduce modern elements while preserving the open layout and aligning with existing subdivisions, maintaining historical continuity. Using sympathetic materials, such as corrugated metal roofing and timber simulation cladding, the new structure will respect the site's rural character.

The setting, views, and vistas will experience a slight heritage impact, with a moderate magnitude of change with the new structure integrating into the natural landscape and village character. Elevated construction will improve flood resilience, and sensitive design choices, such as solid-to-void ratios and viewing platforms, will ensure visual continuity with key heritage features like nearby sugar cane fields and distant mountain ranges.

In terms of landscape, the proposed works are expected to have a neutral to slight heritage impact with a negligible magnitude of change. Significant trees will be retained, and additional plantings will enhance the area's biodiversity and cultural significance. The design will incorporate functional outdoor spaces, including play areas and a Yarning Circle, fostering community engagement and a connection to the natural landscape.

A set of management measures has been formulated to effectively manage and mitigate these identified adverse impacts:

- **MANAGEMENT MEASURE 1:** Prior to commencing project-related work, including site establishment fencing and the like, and upon its completion, an archival recording of Building A should be created, capturing significant views and vistas from within the subject site and the adjoining Tumbulgum HCA. This recording should also include documentation of the identified moveable heritage item (The school sign and bell). The archival process should involve high-resolution photographs, detailed descriptions to document the building's architectural elements, spatial context, and surrounding landscape. This is to be undertaken in adherence to the guidelines outlined in *How to prepare archival records of heritage items, from the Heritage Information Series of the NSW Heritage Office, 1991* and the *Photographic Recording of Heritage Items Using Film or Digital Capture* (NSW Heritage Office 2006).

- **MANAGEMENT MEASURE 2:** The school sign and bell must be carefully removed under the guidance of a suitably qualified heritage professional before demolition begins. All necessary de-installation, repairs, and reinstatement measures should be undertaken under the direction of a qualified heritage consultant or conservator, following best practice heritage conservation standards. Once stabilised, the school sign and bell must be stored in a secure, low-traffic location on-site. A designated secure area, such as a ventilated shipping container, should be established to protect it from potential damage during construction. The Construction Environmental Management Plan (CEMP) will include detailed documentation to ensure its proper reinstatement upon project completion. Sympathetic integration of the Honour Roll into the new development should be considered to preserve its accessibility and visibility.

  It should be noted that the 'non-heritage social significance' items listed in Table 1.5 are not required to be conserved, but the school should be given the opportunity to retain these items if they wish.

- **MANAGEMENT MEASURE 3:** A salvage and reuse methodology must be implemented to retain valuable, non-hazardous building materials and architectural elements from the heritage building for future use. Demolition works for Building A are to be supervised by a heritage consultant and guided by a salvageable reuse register. Heritage items unaffected by flooding and not designated for interpretation are to be carefully catalogued under the heritage consultant's direction and made available for SINSW to reuse as deemed appropriate.

- **MANAGEMENT MEASURE 4:** A Heritage Interpretation Plan and Strategy must be prepared by a qualified heritage specialist, with a focus on interpreting the historical significance of the site, particularly the original schoolhouse adjoining the Tumbulgum HCA. The strategy should be developed in collaboration with heritage experts, the Parents and Citizens' Association, and school leadership to foster a deeper understanding and appreciation of the site's heritage.

  The Heritage Interpretation Strategy should guide the implementation of interpretive installations and content, incorporating historical records and community insights to establish a meaningful connection to the site's history. These installations should reflect the architectural and historical importance of the schoolhouse, emphasising its significance within the broader Tumbulgum village.

  The Heritage Interpretation Plan should ensure that interpretive content is thoughtfully placed to be visible and accessible, particularly from the streetscape, to enhance public engagement. Interpretive elements may include signage, digital media, public art, and other storytelling forms.

  This plan should contribute to preserving the heritage fabric while strengthening the local community's connection to the site's history, fostering long-term protection and educational opportunities. It must align with the *ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites* (ICOMOS, 2008),

Heritage Interpretation Policy (NSW Heritage Office, 2005) and *Interpreting Heritage Places and Items: Guidelines* (Heritage Council of NSW, 2005).

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1 The heritage item

This statement of heritage impact (SoHI) has been prepared using the SoHI template provided in *Guidelines for preparing a statement of heritage impact* (Department of Planning and Environment (NSW), 2023b).

1.1 Site description

Tumbulgum Public School is located at 11 Fawcett St, Tumbulgum, New South Wales (NSW) (Figure 1.1), in the Parish of Condong, County of Rous. The school occupies Lots 1 to 11 and 19 to 30 DP1223, bordered by Fawcett Street to the south, Bawden Street to the west private properties to the north and Irving Street to the west. The curtilage of Tumbulgum Public School has been identified, with heritage values contained within this designated Lot and DP area. The site's proximity to the Tweed River—just 165 metres (m) west—places it within a 'low flow flooding area,' as identified by Tweed Shire Council's Flood Reports.

The school's facilities include the 1891 weatherboard schoolhouse and the former 1907 Cudgera Creek schoolhouse (Building A), alongside contemporary learning spaces (Building E), temporary classrooms, a multipurpose sports complex, and various outdoor recreation areas. The school also features ancillary structures such as temporary storage containers, and covered walkways. Open spaces include a field and a hard-court playing area, with car parking available on Fawcett and Bawden Street (Plate 1.1).

The school is surrounded by a green buffer of mature trees along both its north, west and south boundaries, with additional clusters of trees at the east end. A managed rainforest garden, planted in the 1991, is located on the south-west boundary. An arborist report, commissioned by ADCO, assessed a total of 192 trees, including identification of species such as Blue Fig (*Elaeocarpus grandis*), Camphor Laurel (*Cinnamomum camphora*) Lilli Pilli *(Syzygium sp.),* Davidson's Plum (*Davidsonia jerseyana*) and Pecan (*Carya illinoinensis*). The report evaluated the condition of the surrounding vegetation and potential impact from the proposed development.

The school is set within a broader landscape dominated by sugar cane fields to the east and rural residential properties to the north, south and west. To the west, Fawcett Street serves as the village of Tumbulgum's primary road, and the land is zoned RU5 village under the *Tweed Local Environmental Plan 2014* (TLEP 2014), which permits for a range of land uses, services and facilities that are associated with a rural village.

1.1.1 Heritage item

The heritage item, Building A, is an 1891 weatherboard schoolhouse at Tumbulgum Public School. It also includes a later extension and the former 1907 Cudgera Creek School building, which is now attached to it. Although not currently listed on statutory and non-statutory registers, the 1891 school building complex and grounds meets the threshold of local heritage significance as assessed in Section 2.

Building A is an elevated timber structures with weatherboard cladding, used historically as a schoolhouse. The buildings are generally in good condition, despite some local defects. There is no significant structural damage attributed to the 2022 flood events. However, hazardous materials, including asbestos in fibre cement sheeting and lead-based paint on walls and windows, have been identified. These materials require careful removal and management but were not found to be further contaminated or disturbed by flood-related issues.

Photograph 1.1 **1891 weatherboard schoolhouse (left) and the former 1907 Cudgera Creek school building (right) (Building A) and the learning space (Building E), viewed from the east boundary, facing west**

Photograph 1.2 **1891 weatherboard schoolhouse (Building A), facing west.**

Photograph 1.3 **Former 1907 Cudgera Creek school building (Building A), facing west**

Photograph 1.4 **Access ramp to the elevated Building A, facing east**

In addition, Tumbulgum Public School contains several unlisted items of heritage and social significance that were identified during the May 2024 site visit, including:

- artwork located on the school grounds (non-moveable items of non-heritage social significance)
- Ian Buckley Rainforest memorial plaque (moveable item of non-heritage social significance)
- Tumbulgum school sign (moveable item of heritage significance)
- school bell (moveable item of heritage significance)
- ANZAC Aleppo Pine memorial plaque and tree (moveable and non-moveable item of non-heritage social significance)
- memorial garden signage (moveable item of non-heritage social significance)

- interpretation panel (moveable item of social significance)

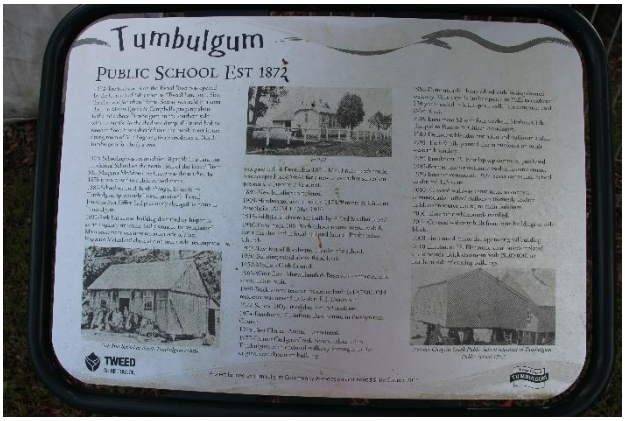
While these items are not officially registered, they hold either historical or social significance within the community.

Photograph 1.5 **Ian Buckley Rainforest memorial plaque, viewed from the west boundary, facing north**

Photograph 1.6 **Artworks across the elevations, viewed from the west boundary, facing north**

Photograph 1.7 **School sign and bell, viewed between Building E and Building A, facing east**

Photograph 1.8 **ANZAC Aleppo Pine memorial and tree, viewed from east boundary, facing north**



Photograph 1.9 **Memorial garden signs, viewed from north boundary, facing south**

Photograph 1.10 **Interpretation panel, viewed from Fawcett Street, facing north**

Figure 1.1 Regional setting

Figure 1.2 Local context

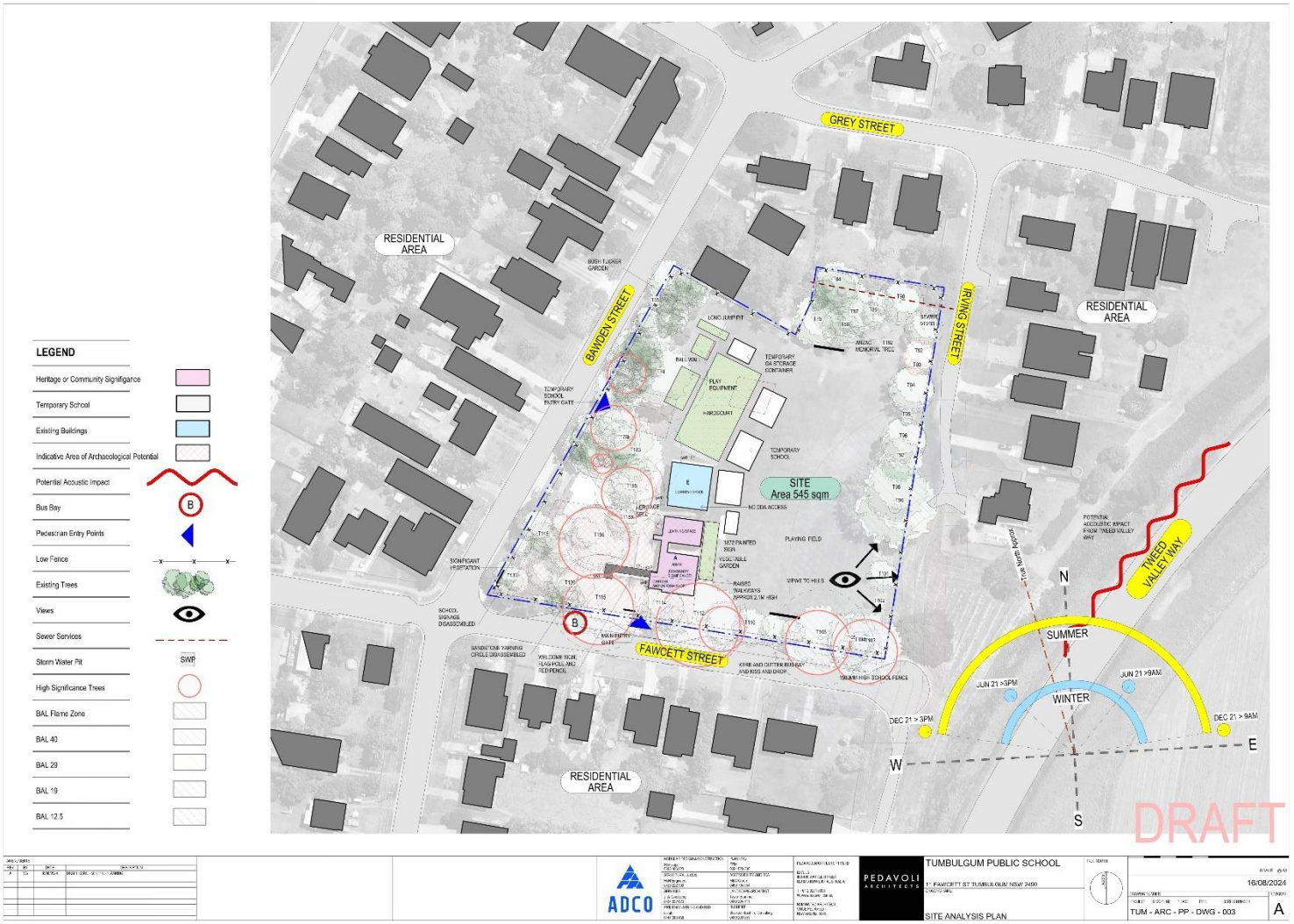


Plate 1.1 Draft site analysis plan

Source: Pedavoli Architects

1.1.2 Heritage listings

The subject site is situated 76 m outside the boundaries of a Tumbulgum Heritage Conservation Area (HCA) (# C4) as designated in the TLEP 2014. (Figure 1.4).

Tumbulgum Public School is not listed on the NSW Department of Education s170 heritage and conservation register, it is not listed as a local heritage item under Schedule 5 of the TLEP 2014, nor is it included in the NSW State Heritage Register, National Heritage List, Commonwealth Heritage List, National Trust Register (NSW), or the former Register of the National Estate.

The identified archaeological and Aboriginal cultural heritage significance associated with the site has been assessed in separate reports prepared by EMM and is beyond the scope of this SoHI. However, to maintain consistency across our reports, areas of historical archaeological potential, particularly those related to the former teacher's residence are included in Figure 1.3.

Table 1.1 Heritage register search

Jurisdiction	Heritage Register	Listing
Federal	World Heritage List	-
	Commonwealth Heritage Register	-
	National Heritage Register	-
	Register of the National Estate (non-statutory)	-
State	State Heritage Register	-
	Section 170 Heritage and Conservation Register (Department of Education)	-
Local	Tweed Local Environmental Plan 2014: Heritage conservation areas	-

Notes: WHL = World Heritage List; CHL = Commonwealth Heritage List; NHL = National Heritage List; SHR = State Heritage Register; Section 170 Register = Heritage and Conservation Register under Section 170 of the Heritage Act; LEP = Local Environmental Plan; RNE = Register of the National Estate.

Furthermore, there are four items of local heritage significance on the TLEP 2014 located within 500 m of Tumbulgum Public School. These items have been illustrated in Figure 1.3 and listed in Table 1.2, including their approximate distance from the subject site.

Table 1.2 Heritage register search – nearby items of heritage significance

Jurisdiction	Heritage Register	Listing	Distance from subject site
Federal	World Heritage List	-	-
	Commonwealth Heritage Register	-	-
	National Heritage Register	-	-
	Register of the National Estate (non-statutory)	265: *Tweed River Valley, Murwillumbah, NSW, Australia*	About 92600 ha, located near Murwillumbah
State	State Heritage Register	-	-

Jurisdiction	Heritage Register	Listing	Distance from subject site
	Section 170 Heritage and Conservation Register (Department of Education)	-	-
Local	Tweed Local Environmental Plan 2014: Heritage items	I96: *Ferry approach* (Riverside Drive, Tumbulgum)	150 m west of the subject site
		I97: *St Peter's Anglican Church* (122–124 Riverside Drive, Tumbulgum. Lots 7 and 8, DP 1112119)	130 m south west of the subject site
		I98: *Tumbulgum Hall* (168 Riverside Drive, Tumbulgum. Lots 30 and 31, Section 1, DP 1223),	365 m south west of the subject site
		I99: *War memorial gates* (Bawden Street, Tumbulgum. Lots 19 and 20, Section 6, DP 1223	200 m south of subject site
		C4: *Tumbulgum Conservation Area*	76 m west of the subject site

Notes: WHL = World Heritage List; CHL = Commonwealth Heritage List; NHL = National Heritage List; SHR = State Heritage Register; Section 170 Register = Heritage and Conservation Register under Section 170 of the Heritage Act; LEP = Local Environmental Plan; RNE = Register of the National Estate.

Figure 1.3 Areas of historical archaeological potential

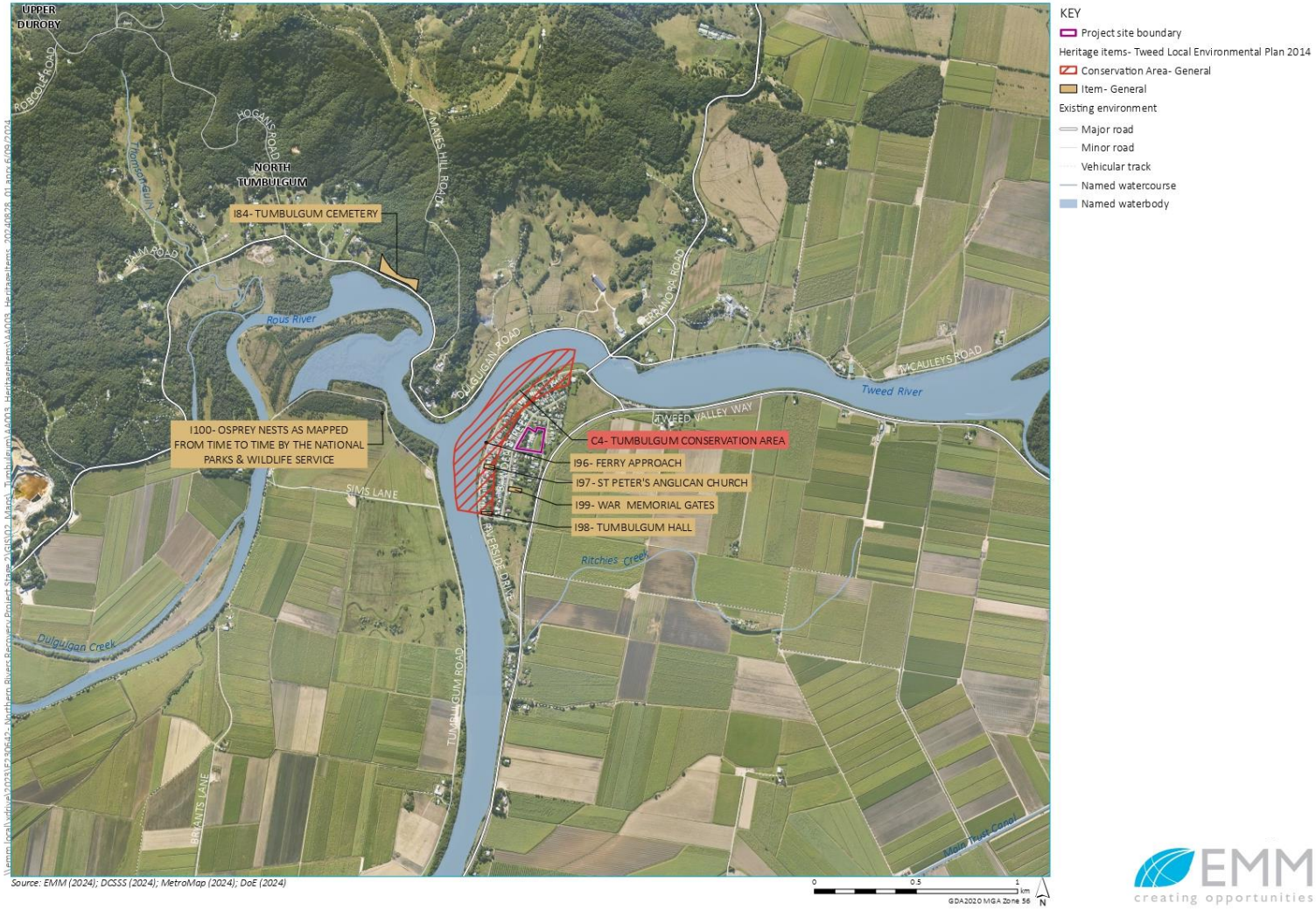


Figure 1.4 Heritage items

1.1.3 Site and its context

Tumbulgum Public School is situated in a rural setting within the village of Tumbulgum, near the Tumbulgum Heritage HCA. The school is surrounded by residential homes along Fawcett and Bawden Streets, with the Tweed River approximately 150 metres to the west, with the distant mountain ranges beyond, and sugar cane fields to the east. The area's flat topography contributes to its susceptibility to flooding.

The village's location at the junction of the Rous and Tweed Rivers serves as a regional landmark, with Fawcett Street aligned to provide a significant view of the river and the historic ferry approach. Approaches from Riverside Drive, along with the riverfront, enhance the village's distinctive landscape.

The streetscape is characterised by traditional timber and tin homes on narrow lots, similar to the school buildings, with many residences elevated to manage flood risk. Consistent landscaped setbacks and clearly defined entryways contribute to the uniformity of the streetscape. Roofs are typically corrugated iron with simple hip or gable designs, and verandahs with lower-pitched roofs add to the architectural consistency. Trees and landscaped gardens, both in private yards and along the streets, are key features that, together with river views, create a cohesive village setting.

Photograph 1.11 **Fawcett Street, viewed from Tumbulgum Public School, facing south east**

Photograph 1.12 **Tumbulgum Public School, viewed from Fawcett Street, facing north west**

Photograph 1.13 **Bawden Street, viewed from Tumbulgum Public School, facing north west**

1.1.4 The proposed works area

The proposed development will involve the demolition of all existing structures, directly impacting the 1891 weatherboard schoolhouse and the former 1907 Cudgera Creeek schoolhouse (Building A) as outlined in Figure 1.5.

Figure 1.5 Proposed project impacts

1.2 Site summary history

1.2.1 Documentary history

i Pre-European Contact

Information about the socio-cultural structure of Aboriginal society prior to European contact primarily comes from ethno-historical accounts made by colonial settlers. However, these records focused more on early European expeditions rather than Aboriginal culture, often after significant social disruption due to disease and displacement. This makes such information contentious, especially regarding language group boundaries, which were likely more fluid and complex than the rigid demarcations drawn by colonial observers.

Tumbulgum Public School is located in the boundaries of the Bundjalung nation. Bundjalung Country is recorded covering an area of 6000 km^2 from north of Grafton to south of Beenleigh in Queensland and west to Tenterfield (Tindale, 1974). The Bundjalung Nation is comprised of several language groups, with different dialects and languages found over the region (Sharpe, 1985). Tumbulgum Public School falls in the Ngandowal dialect area that occupies the Tweed River region (Boileau, 2004, p. 20).

European settlers claimed lands of importance to the local Ngandowal that were traditionally used for social gatherings, resource procurement and burial practices (Tweed Shire Council, 2018). The Tweed River region is rich in Aboriginal sites and contact history and numerous sites of importance are known in the vicinity of Tumbulgum (Boileau, 2004; Tweed Shire Council, 2018). Tumbulgum Public School currently falls in the Jali Local Aboriginal Land Council area.

ii Colonisation and settlement

In May of 1770, Lieutenant James Cook sailed the *Endeavor* north from Botany Bay, becoming the first European to observe the Tweed region (Boileau, 2004, p. 40). After sighting the peak of Mount Warning, the *Endeavour* narrowly avoided running aground on a sandbar at the mouth of the Tweed River (Boileau, 2004, p. 40). Following the arrival of the First Fleet in 1788, Lieutenant Phillip Parker King led the first expedition into the Tweed region in 1819, describing it as 'productive and wooded' (Boileau, 2004, p. 40). In 1823, John Oxley led the first overland expedition into north-east NSW, travelling approximately 7 km up the Tweed River from Fingal Head (Boileau, 2004, p. 40). John Uniake, a member of Oxley's party, described the Tweed as a 'deep rich valley, clothed with magnificent trees' and said it 'exceeded anything I had previously seen in Australia' (Boileau, 2004, p. 40). Assistant Surveyor Robert Dixon passed through Condong while surveying the Tweed and Brunswick Rivers and the Country of Rous in 1840 (Boileau, 2004, p. 42). In 1843, the Country of Rous was declared the northern border of northeast NSW (Boileau, 2004, p. 42).

The cedar industry brought the first European settlers to the Tweed River region from 1843 (Tumbulgum Community Association, n.d.). Convict gangs from the Morton Bay settlement had been cutting cedar and pine in the Tweed Valley from 1829, but Aboriginal resistance forced the enterprise to be abandoned by 1832 (Boileau, 2004, p. 44). The first cedar camp was established at Terranora near a deep-water anchorage on the banks of the Tweed (Boileau, 2004, p. 44). Cedar getters were not permitted to build permanent dwellings, so the settlements consisted of tents and bark huts for many years (Boileau, 2004, pp. 44–45).

Settlement around Tumbulgum was further spurred on by the Robertson Land Acts of 1861 (*Crown Lands Alienation Act 1861* and the *Crown Lands Occupation Act 1861*) (Gahan, 2004, p. 23), which allowed settlers to purchase up to 320 acres of Crown land at £1 per acre, payable over three years. By 1870 two hotels had been established at Tweed Junction and the town prospered a meeting place for cedar getters and Tweed River farmers (Boileau, 2004, p. 54). A sugar mill was established at *Inglewood* near Tweed Junction in 1875 with Alexander Pringle, Thomas Shankey and Patrick Byrne later constructing Abbotsford Mill near the township (Boileau, 2004, p. 103). In the 1880s, Murwillumbah overtook Tweed Junction as the administrative and commercial centre of the region (Boileau, 2004, p. 54). Constant flooding and the subdivision of William Baker's farm on the south east

bank of the River in 1883 shifted the town centre across the river to form the current township of Tumbulgum (Plate 1.3) (Boileau, 2004, p. 54; Tumbulgum Community Association, n.d.).

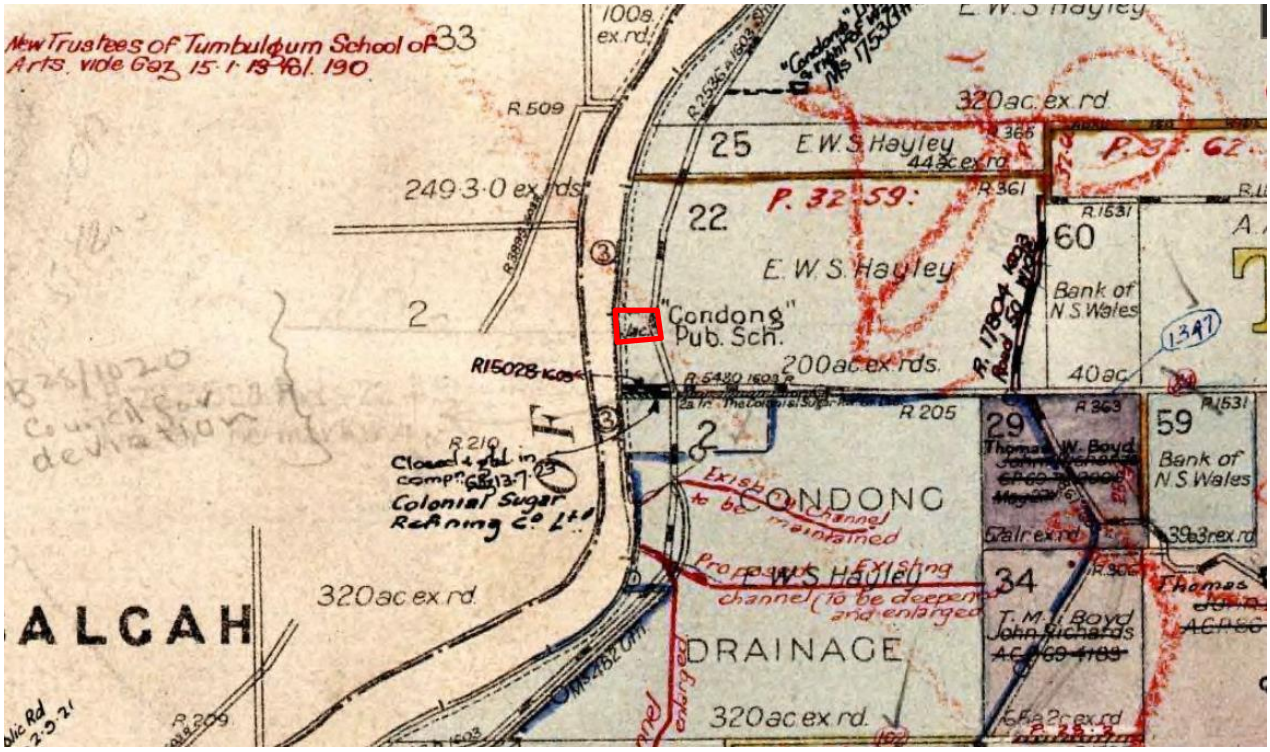


Plate 1.2 **1921 Parish of Condong plan with later annotation. The location of the current Tumbulgum Public School is shown in red.**

Source: HLRV

iii Education in NSW

The *Public Instruction Act, 1880* introduced free, secular, and compulsory education for children in NSW (NSW Government, n.d.-a). This legislation required children aged 6 to 14 to attend school for at least 70 days over a six-month period each year. The introduction of compulsory education significantly expanded access to education for all social classes in Australia, leading to the establishment of many new public primary and high schools across the state.

iv Schooling at Tumbulgum

The Council of Education approved the establishment of the first formal school on the Tweed region at Tumbulgum in 1872 (Breckenridge, 1997, p. 1). School was initially held in a corn shed on the property of Messrs Quirk and Campbell at The Junction, now North Tumbulgum, but was soon moved the Mrs Logan's sitting room due to damp and lack of light (Breckenridge, 1997, p. 1). The schoolteacher was moved to Murwillumbah in 1873, leaving The Junction/Tumbulgum without a school until 1875 (Breckenridge, 1997, p. 1). The parents of The Junction/Tumbulgum, however, continued to advocate for the education of the local children, including hiring a private tutor for August and September of 1874 (Breckenridge, 1997, p. 1).

Land was taken up on the north-side of the River for a purpose-built school in 1875 and a bark hut was constructed for the school house, which was opened in May of that year (Plate 1.5) (Breckenridge, 1997, p. 1). A small 3-room teacher's residence was also built on the site (Division of Research and Planning & Department of Education, 1962, p. 1). Despite enrolments numbering 28 students, "Tweed Junction" initially opened as a provisional school. Provisional schools were elementary schools that were established from 1867 in locations with between 15 and 25 enrolments (NSW Government, n.d.-a). In addition, conditions of Provisional School approval

meant the local community had to fund and supply a furnished school building and teacher's residence prior to the Government supplying books, equipment and a teacher (NSW Government, n.d.-a). Tweed Junction was declared a public school in 1876 (Breckenridge, 1997, p. 1). In 1881 the school was described as:

> so small that even the children at present attending it are so crowded that it is not only unwholesome, but the ordinary routine of school discipline, cannot be properly observed (*Australian Town and Country Journal*, 10 December 1881:26).

Tweed Junction public school was renamed Tumbulgum Public School in 1889 (Breckenridge, 1997, p. 1).

William Baker was granted the conditional purchase of 50 acres (20.2 ha) on the curve of Tweed River, east of the north arm in 1879 (Plate 1.3) (NSW Land Registry Service, n.d., p. Vol.477 Fol.200). The property was purchased by Edward Chapman in 1882 before being subdivided as the site for a new Tumbulgum Private Town in 1883 (NSW Land Registry Service, n.d., p. Vol.477 Fol.200; Tumbulgum Community Association, n.d.). The establishment of the Private Town shifted the economic centre of the Tumbulgum township across the Tweed River and this shift combined with the growing unsuitability of the school, and the fact that the majority of the children resided on the south side of the River led the Department of Education to seek a new school site in the Private Town (DoRP and DoE 1962, p. 1).

v Tumbulgum Public School

A total of 2 acres, 3 roods and 12 perches (0.9 ha) in Section 5 of the 1883 subdivision were resumed for school purposes on 18 December 1891 and officially granted to the Minister of Public Instruction in 1893 (NSW Land Registry Service, n.d., p. Vol.1104 Fol.3). These property Lots were under the ownership of eight individuals at the time of resumption and the land holders were given a portion of £364 as compensation for their land (DoRP and DoE 1962, p. 2). The majority of the current school buildings sit in the boundary of Thomas Campbell's holdings (NSW Land Registry Service, n.d., p. Vol.702 Fol.118). Only one of the landowners was living on their property at the time of resumption, a Mr Norton had constructed a cottage his land (DoRP and DoE 1962, p. 2). Despite being offered £50 compensation and permission to keep all materials following the removal of his cottage, Norton remained on his property following the opening of the school and was removed by the sheriff in September 1894 (DoRP and DoE 1962, p. 2). It is likely Norton resided on the west side of the school site as in 1894 he had taken over the teacher's residence toilet, which was outside the back door of his cottage 1894 (DoRP and DoE 1962: p.2). This cottage can be seen in 1891 Crown plan of the site, prior to the establishment of the school. It was demolished and removed from the premise in 1893 ().

The new Tumbulgum Public School was designed by the Government architects (DoRP and DoE 1962, p. 2). A brick building was initially planned for the school but a timber building was deemed more suitable due to the high risk of flooding (DoRP and DoE 1962, p. 1). Construction began on the Tumbulgum Public School schoolhouse and teacher's residence (see Section 1.2.1va) in 1891 and the shelter shed was relocated from the old school to the new site (Plate 1.6) (DoRP and DoE 1962:2; *New South Wales Government Gazette*, 17 April 1891:2813). Tumbulgum Public School was opened on the current site on 16 December 1892 (DoRP and DoE 1962, p. 2).

By the end of 1898 enrolments had grown to 75 students and the school building was in need of painting and minor repairs, which were completed that year (DoRP and DoE 1962, p. 4). The growing enrolments led to the addition of a classroom to the schoolhouse in November 1913 (Plate 1.7) (DoRP and DoE 1962, p. 4). Documentation of these works do not survive and other changes/repairs may have also occurred at this time (DoRP and DoE 1962, p. 4). In 1920, enrolments numbered 112 and a second assistant teacher was approved for Tumbulgum Public School (DoRP and DoE 1962, p. 5). The Tumbulgum Parents and Citizen's Association (PCA) also formed in the 1920s and in 1927 the Association made a request to the Department of Education to make needed repairs to the school (DoRP and DoE 1962, p. 6). The P&CA's requests were put on indefinite hold (DoRP and DoE 1962, p. 6).

On 19 October 1928 storms blew down school's weathershed and the PCA re-erected the building despite the Department deeming the works non-urgent as it was the only large covered area available in the school grounds

(DoRP and DoE 1962, p. 6). Flooding at Tumbulgum on 6 February of 1931 reached a depth of over one metre, covering the top rail of the school's gate and flooding the schoolhouse to a depth of 30 cm (DoRP and DoE 1962, p. 6). The school was closed for a period of time and Head teacher Mr Watson proclaimed the flood 'the greatest known in the district' (DoRP and DoE 1962, p. 6). By August 1935, Tumbulgum Public School was in urgent need of extensive repairs (DoRP and DoE 1962, p. 6). Works began in early 1936 with the weathershed taken over as the centre of operations and the labourers sleeping in the school's hat and cloakroom (DoRP and DoE 1962:6; *Tweed Daily*, 30 March 1936:6). The works were completed in April of 1936 (DoRP and DoE 1962, p. 6). Additional repairs and renovations were approved the following year (Plate 1.8) (*Tweed Daily*, 22 December 1937:4).

In 1940, enrolments numbered 106 and the Tumbulgum town hall on the corner of Riverside Drive and Government Lane was rented as an additional classroom space (Breckenridge, 1997, p. 3). A concrete assembly area was approved for the school grounds in 1941 and repairs were made to the school and fencing in 1942 (*Tweed Daily*, 16 May 1941:4, 11 February 1942b:2). The encroachment of the Japanese in the Pacific during WW2 led townships across northern New South Wales to implement measures to protect communities from the threat of war on home soil (Lismore City Council, 2024). As a result, in March 1942, 40 members of the Tumbulgum community excavated air-raid trenches with capacity for 100 children in the school grounds (*Tweed Daily*, 13 March 1942:2). The trenches were infilled in 1944 with the assistance of Mr Avery's horse and plough and the P and C suggested the area be rotary tilled and harrowed at a later date (*Tweed Daily*, 31 March 1944:2).

Heavy rainfall in June of 1945 resulted in the flooding of Tumbulgum with peak flood waters measuring 10cm above the 1931 levels (*Tweed Daily*, 13 June 1945:4). Water entered the schoolhouse and school teacher's residence, and the school was closed until clean-up efforts were completed (*Tweed Daily*, 13 June 1945:4). The school building was raised above the flood level in 1950 (Tweed Shire Council & Tumbulgum Community Association, 2013). In 1963, the school was connected to the Murwillumbah reservoir and a septic toilet block was installed (Plate 1.9) (Tweed Shire Council & Tumbulgum Community Association, 2013).

Space continued to be an issue at Tumbulgum Public School and in 1974 the Presbyterian Church was rented as a classroom for the lower grades (Breckenridge, 1997, p. 4). In 1977, the Cudgera Creek school building was relocated to Tumbulgum (Plate 1.10) (Breckenridge, 1997, p. 4). A school was established at Cudgera Creek in October 1907 and the school was closed prior to relocation in May 1975 (NSW Government, n.d.-b). The Cudgera Creek building was raised on brick foundations and connected to the two-existing classrooms of the Tumbulgum schoolhouse via an enclosed walkway (Breckenridge, 1997, p. 4). The enclosed space created under the buildings was converted to a storeroom and the former storeroom in the original Tumbulgum schoolhouse had the windows lowered and was converted into a staffroom (Breckenridge, 1997, p. 4).

In 1986, a demountable classroom was brought to the school site and set above a concrete pad (Breckenridge, 1997, p. 5). The demountable was connected to the school buildings via a covered walkway and one of the original school rooms was converted to a library (Plate 1.11) (Breckenridge, 1997, p. 5). A time capsule, to be opened in 2022, was also sealed in the brick sports wall at the northwest of the school grounds (Breckenridge, 1997, p. 5). Another demountable was brought to the school site in 1989 for an administration block and the former staffroom was converted to a canteen (Breckenridge, 1997). In 1990, the sliding partitions between the original Tumbulgum schoolhouse classrooms were removed and a permanent wall installed (Breckenridge, 1997). The following year families contributed trees to form the rainforest area in the south-west corner of the site, the location of the first teacher's residence (Tweed Shire Council & Tumbulgum Community Association, 2013). A mural of Mount Warning was completed by students in 1993 (Breckenridge, 1997). The 1969 teacher's residence was converted to a resource centre in 1995 and the school was connected to the sewer system in 1997 (Tweed Shire Council & Tumbulgum Community Association, 2013).

The teachers residence/resource centre was converted to the administration block and a covered walkway was added connecting the building to the other school structures in the year 2000 (Tweed Shire Council & Tumbulgum Community Association, 2013). An additional walkway was connected to the toilet block in 2007. In 2008, a fire caused minor damage to the original Tumbulgum schoolhouse and in 2010 a brick classroom building was

constructed on the north side of the existing classroom block (Tweed Shire Council & Tumbulgum Community Association, 2013).

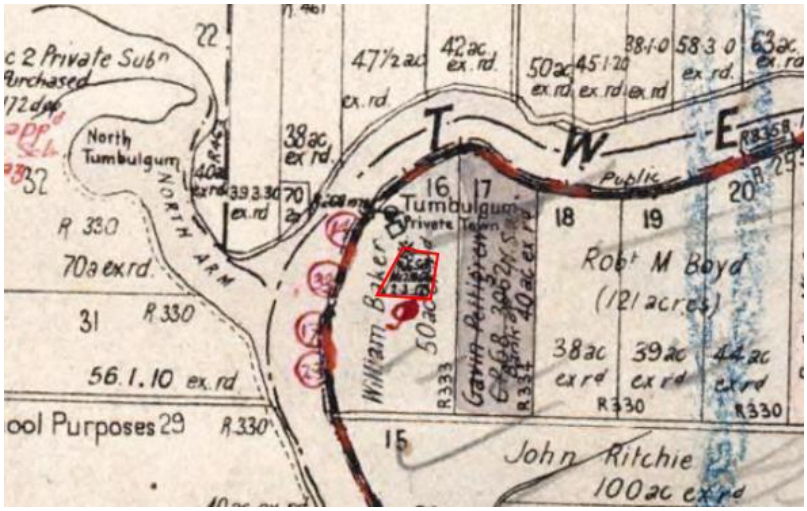


Plate 1.3 **1911 Parish of Condong plan with later annotations. The location of the current Tumbulgum Public School is shown in red.**

Source: HLRV

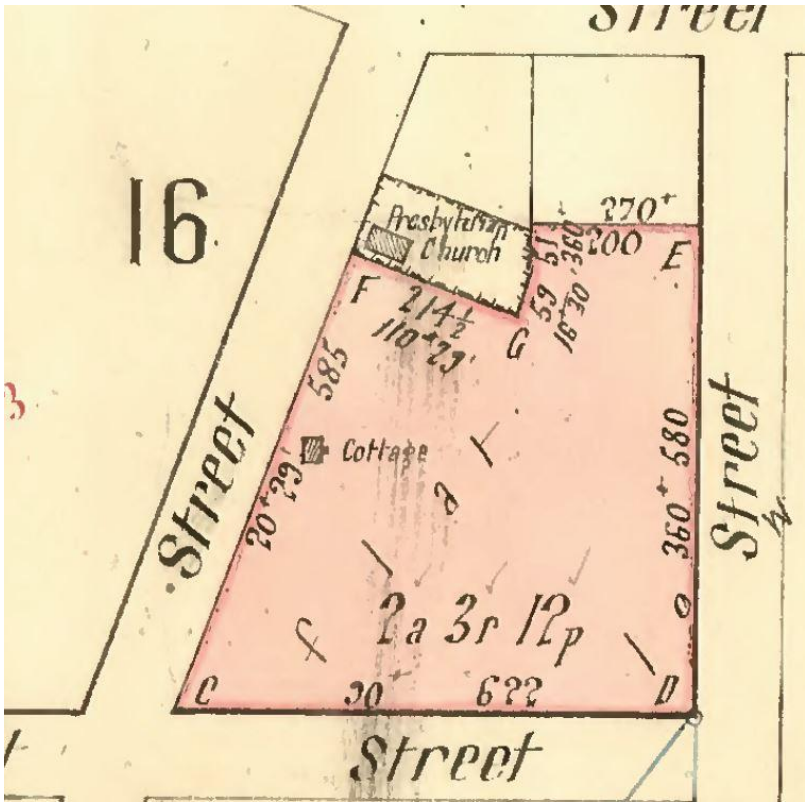


Plate 1.4 **1891 Crown Plan of Tumbulgum school site showing a cottage on the western boundary.**

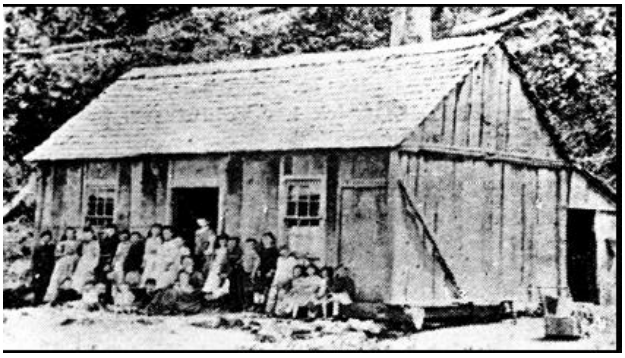


Plate 1.5 **c.1875-1880, Teacher and pupils outside timber school building at Tweed Junction/ North Tumbulgum.**

Source: Boileau 2004:54

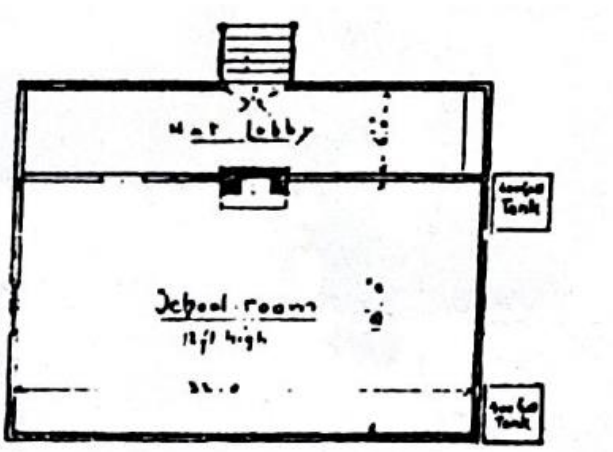


Plate 1.6 **Plan of Tumbulgum Public School school-house c.1909.**

Source: Breckenridge 1997

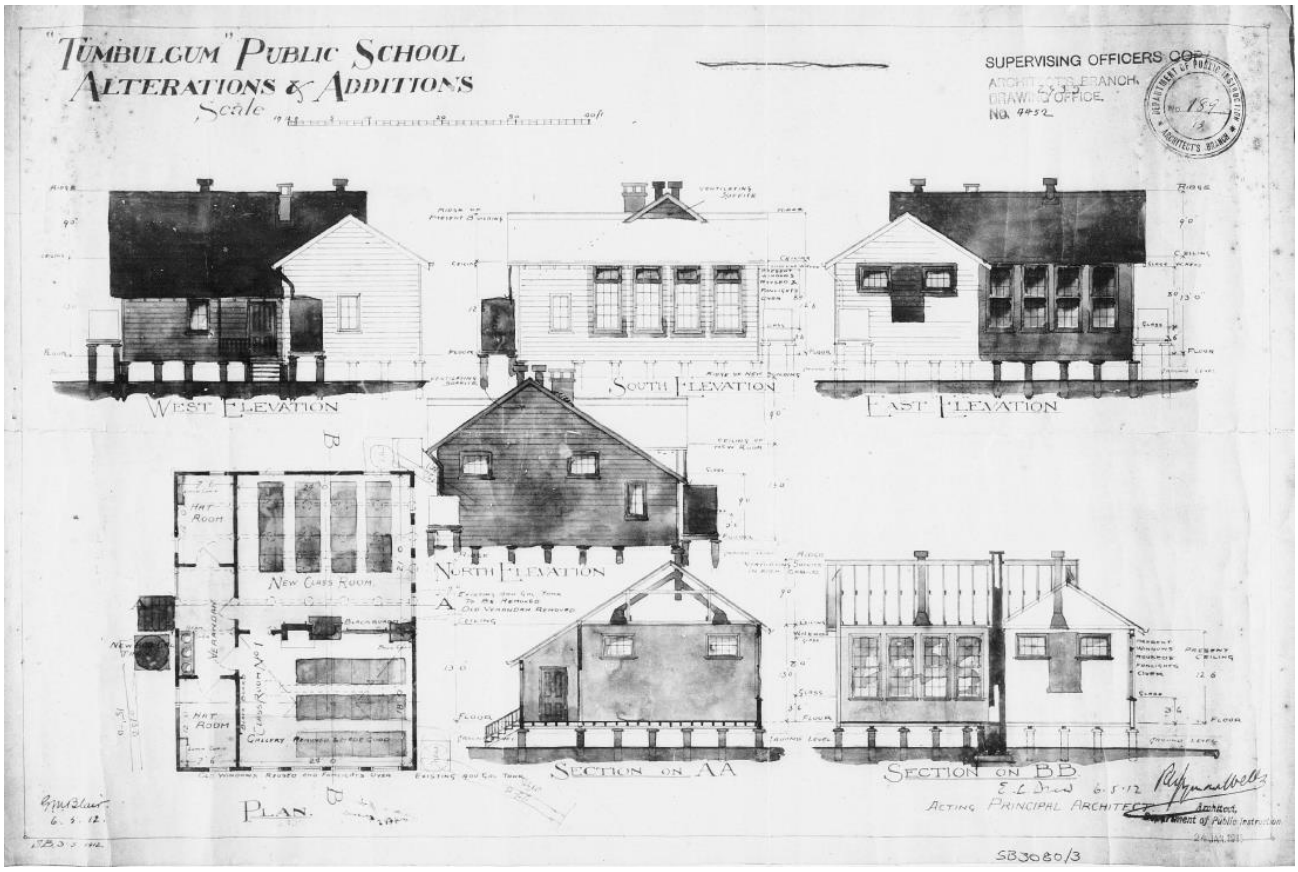


Plate 1.7 **Plan of Tumbulgum Public School school-house showing the addition of a second classroom, 1912.**

Source: DRNSW PWA/SB3080/3

Plate 1.8 **Tumbulgum Public School 1940.**

Source: Tweed Shire Council and Tumbulgum Community Association 2013

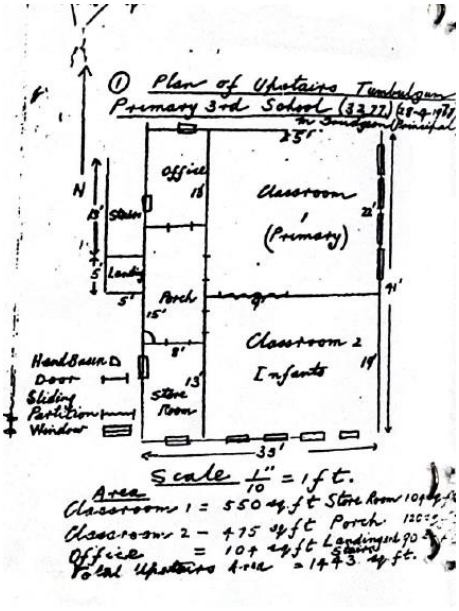


Plate 1.9 **Plan of Tumbulgum Public School schoolhouse, c.1971.**

Source: Breckenridge 1997

Plate 1.10 **1977 relocation of Cudgera Creek school building to Tumbulgum Public School.**

Source: Tweed Shire Council and Tumbulgum Community Association 2013

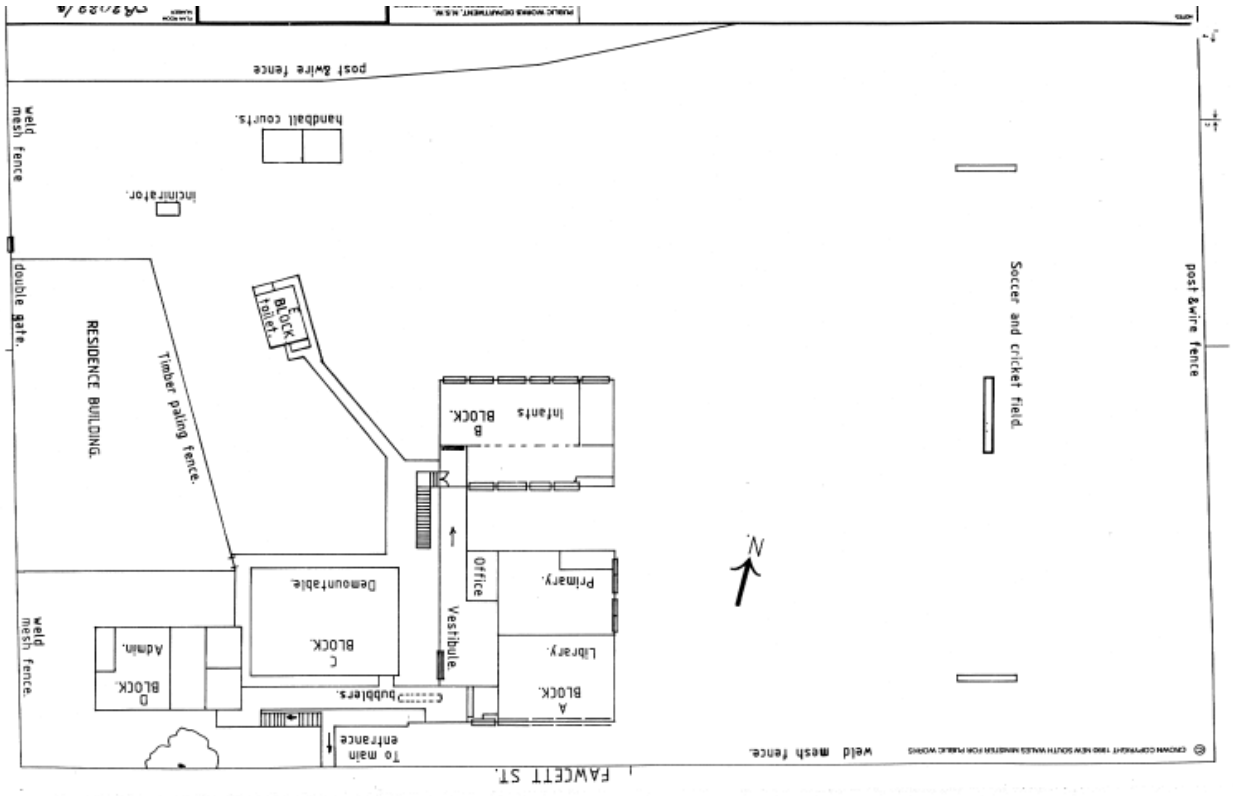


Plate 1.11 Plan of Tumbulgum Public School school-house, 1988.

Source: DRNSW PWA/SB3080/4

a Teacher's residence

The four-room, weatherboard teachers residence with kitchen, laundry and separate toilet was built west of the School house and was completed along with the school in December 1892 (**Error! Reference source not found.** and Plate 1.12) (DoRP and DoE 1962, p. 1). The first repairs to the residence occurred in 1898 with improvements to the washhouse (DoRP and DoE 1962, p. 4). Extensive repairs were carried out in 1910 and again in 1917, which included the replacement of many floorboards, general painting and new fences at a cost of £277.13.0 (DoRP and DoE 1962, p. 4).

In 1921, head teacher Mr Watson made a request to the Department of Education for the addition of a verandah at the side of the residence as well as a new bath and shower (DoRP and DoE 1962, p. 5). The request was ignored and in 1925 Mr Watson appealed to the Department once again (DoRP and DoE 1962, p. 5). The Department Inspector visited the property in February 1926 and noted the building was in a "shocking state" and likely had structural defects from flood waters sitting under the residence (DoRP and DoE 1962, p. 5). The repair works were completed in October of 1926 (DoRP and DoE 1962, p. 5). The residence was impacted by the floods of 1931 and 1945 (DoRP and DoE 1962, p. 6; Tweed Shire Council & Tumbulgum Community Association, 2013). A new water tank was added in 1942 and it is likely other repairs occurred at this time (*Tweed Daily*, 11 February 1942b:2).

The teacher's residence was removed and relocated to a property on Loders Road, Duranbah (Tweed Shire Council & Tumbulgum Community Association, 2013). The residence was replaced with a brick veneer building in 1969 at a cost of $19,790 (Tweed Shire Council & Tumbulgum Community Association, 2013). Carpet was added to the new residence in 1978 (Breckenridge, 1997). The teacher's residence was converted to a resource centre in 1995 before becoming the staffroom in the year 2000 (Tweed Shire Council & Tumbulgum Community Association, 2013).

Plate 1.12 **1967 aerial photograph of Tumbulgum Public School. The Teacher's residence and yard is shown by the blue dashed line.**

Source: Historical Imagery Viewer ID: 1161_03_163

A review of the available historical imagery and site plans in Table 1.3 provides insights into the transformation of the subject site and its surroundings.

Table 1.3 **Historical aerials of the subject site**

Aerial photograph – subject site outlined in red.	Year of photograph and description.
	1955 • The 1891 schoolhouse is located on the south boundary of the school property and three outbuildings, including two toilets are north of the main building. • The 1891 teacher's residence is in the south-west boundary of the site in a yard marked by plantings. Two outbuildings, a garage and separate toilet are north of the residence. • The subject site and surrounds have been cleared of vegetation, but trees are located on the school boundary and surrounding the teacher's residence complex. • Bawden Street is present to the west as an sealed road and Fawcett Street to the south of the subject site is an unsealed road. • Residential development is visible north, west and south of the subject site. • Cane fields are east of the subject site. Source: Historical Imagery Viewer 1161_03_163

1967

- The north-most outbuilding has been removed from the site but few other changes are visible

Source: Historical Imagery Viewer 1161_03_163

1971

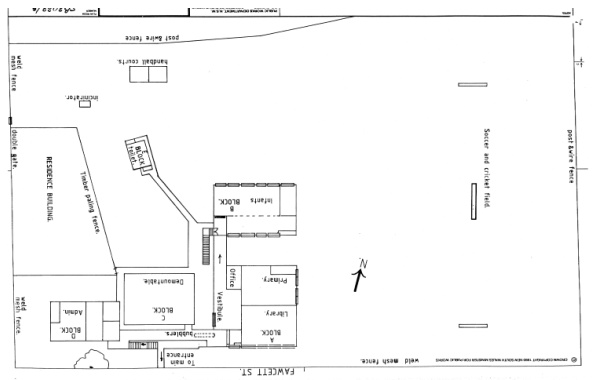
- No observable changes to the 1891 schoolhouse. The lighting in the photograph makes it difficult to discern if changes have occurred to the outbuildings.
- The 1891 teacher's residence and associated buildings have been demolished and replaced with the current residence.
- Fawcett Street was extended to the east and sealed. Gray Street has been established as an unsealed road, north of the subject site.
- Cane fields are east of the subject site.

Source: Historical Imagery Viewer 1966_02_092

1987

- The 1891 schoolhouse has been extended and an additional two buildings, which are connected to the 1891 structure via a walkway, have been added to group. A building or concrete pad/hardcourt is located in the north-west corner of the subject site.
- No observable change to the teacher's residence from 1971.
- Additional trees have been planted around the subject site boundary.
- Tweed Valley Way has been constructed as two separate roads east of the subject site and Irving Street is now present.
- Residential development has intensified west, north and east of the subject site.

Source: Historical Imagery Viewer 3584_05_070



1988

- The 1891 schoolhouse was extended, and two additional buildings were constructed.
- These new buildings were connected to the original schoolhouse via a walkway. Additionally, a building or concrete pad/hardcourt was placed in the northwest corner of the site.
- There was also an increase in tree plantings around the school boundary.

Source: DRNSW PWA/SB3080/4

1997

- Additional buildings have been added to the schoolhouse complex.
- The rainforest trees have been established in the south-west corner of the subject site.
- Tweed Valley Way has been converted into a multi-lane highway and

Source: Historical Imagery Viewer 4371_04_096

2024

- Additional building have been added to the subject site to form the current campus layout.
- The roof material of the teacher's residence has changed and the area has become covered by maturing rainforest trees.
- The trees around the school boundary have matured.

Source: SixMaps

Table 1.4 outlines the physical changes and chronological events at Tumbulgum Public School.

Table 1.4 Chronological events – Tumbulgum Public School

Date	Event
Pre-1788	Aboriginal lands occupied by the Bundjalung-Yugambeh language group, extending from the Clarence River to the south, the Logan River in the north, and to Warwick and Tenterfield in the west.
1770	The Lieutenant James Cook observes Mount Warning and the mouth the Tweed River.
1823	John Oxley led an expedition 7 km along the Tweed River from Fingal Head.
1840	Assistant Surveyor Robert Dixon surveyed the Tweed and Brunswick Rivers, passing Tumbulgum and The Junction.
1843	The Country of Rous was proclaimed making the north border of north-east NSW.
1843-1850	In 1843, cedar and fertile grazing land brought the first European settlers to the Tweed River region. A small settlement was established at the Tweed Junction/ The Junction, later north Tumbulgum.
1872	A school was established in private residences at The Junction. The school was closed in 1873 when the schoolteacher was moved to Murwillumbah.
1875	A bark hut schoolhouse was built at The Junction and the "Tweed Junction" provisional school established.
1876	Tweed Junction provisional school is re-classified as a public school.

Date	Event
1883	William Baker's grant on the south side of the Tweed River is subdivided for sale and Tumbulgum Private town is established.
1861	The impact of the Robertson Land Acts, which helped spur European settlement in Tumbulgum and shifted the town center across the river.
1874-1889	Establishment of Tumbulgum Private Town (1883) and the official renaming of the school in 1889, such as the growth of the town, the cedar industry, or local infrastructure developments.
1883-1891	**The subject site is sold as part of Section 5 of the Baker's Farm subdivision. The property lots are purchased by eight individuals. A Mr Norton built a cottage on his property.**
1889	Tweed Junction public school was renamed Tumbulgum Public School.
1891	**The subject site was taken up by the Department of Education as the new site of Tumbulgum Public School. A purpose-built weatherboard schoolhouse and teacher's residence are constructed on the subject site and the former Tumbulgum School weather shed is brought to the new site.**
1892	**Tumbulgum Public School opens on the subject site.**
1894	Mr Norton is removed from school property and his cottage dismantled.
1914-1918	The impact of the Great War in 1914-1918 left a lasting mark on the are.
1920s-1930s	Repairs to the school in the late 1920s, the impact of the 1931 flood, and repairs conducted in the mid-1930s, as well as additional context on the P&C Association's role.
1939-1945	The impact of the World War II in 1939-1945 left a lasting mark on the Tumbulgum. Community involvement lead to the building of air-raid trenches during WWII.
1945	Specific post-war events related to the school's expansion, enrolment changes, or additional infrastructure, such as the 1940 rental of town hall space or the school's role in the local community during this period.
1942-1944	Air raid trenches are excavated on Tumbulgum Public School grounds.
1950	The Tumbulgum Schoolhouse was raised above flood levels.
1963	Tumbulgum Public School was connected to Murwillumbah Reservoir and septic toilets were installed.
1969	The weatherboard teacher's residence was removed and relocated to a property on Loders Road, Duranbah. A new, brick veneer teacher's residence was built on the school site.
1977	**The Cudgera Creek school building was relocated to Tumbulgum. The building was raised on brick foundations and connected to the schoolhouse via an enclosed walkway.**
1986	A demountable classroom is installed on the subject site and connected to the existing school buildings by raised walkway. A time capsule, to be opened in 2022, was sealed in the brick sports wall at the northwest of the school grounds.
1989	A demountable administration building is installed on the subject site.
1991	A rainforest garden is planted in the location of the former teacher's residence.
1997	The School was connected to the sewer system.
2000	A covered walkway is built to connect all school buildings.
2008	A firs damages part of the 1891 schoolhouse.
2010	A brick classroom is built north of the existing school buildings.
2022	School temporarily closed due to floods and associated damage.

1.3 Physical analysis

1.3.1 The school ground and surrounding area

Tumbulgum Public School is bordered by Fawcett Street to the south, Bawden Street to the west and Irving Street to the east. The Tweed River is located approximately 150 meters to the west, with the distant mountain ranges beyond, and sugar cane fields to the east.

The school grounds contain a mix of historical and modern structures, including the 1891 weatherboard schoolhouse and the former 1907 Cudgera Creek schoolhouse (Building A) (Photograph 1.14), alongside contemporary learning spaces (Building E) (Photograph 1.15), temporary classrooms, a multipurpose sports complex, and various outdoor recreation areas. The school also features ancillary structures such as temporary storage containers (Photograph 1.18), and covered walkways. Open spaces include a field and a hard-court playing area, with car parking available on Fawcett and Bawden Street (Photograph 1.18). Photographs of the play areas could not be taken during the 2024 site visit because children were present.

The grounds are lined with mature trees, including Blue Fig, Camphor Laurel, Lilli Pilli, Davidson's Plum, Pecan providing a natural buffer along the east, west, north and south boundaries (Photograph 1.17 and Photograph 1.16).

To the west, the school is surrounded by residential properties, including locally heritage-listed sites on the TLEP 2014 such as the *Tumbulgum HCA* (LEP # C4) is located 76 m away, with partially obstructed sightlines between the Tumbulgum HCA and the school. The area is characterised by a rural village setting, with traditional timber and tin homes on narrow lots, similar to the school buildings, with many residences elevated to manage flood risk.

Photograph 1.14 **1891 weatherboard schoolhouse (right) and the former 1907 Cudgera Creek school building (left) (Building A), viewed from the west boundary, facing east**

Photograph 1.15 **Learning Space (Building E), viewed from west boundary, facing east**

Photograph 1.16 **Ian Buckley Rainforest area, viewed from west boundary, facing west**

Photograph 1.17 **Mature tree plantings, viewed from south boundary, facing south east**

Photograph 1.18 **Playing field, viewed from south boundary, facing north west**

1.3.2 1891 weatherboard schoolhouse and the former 1907 Cudgera Creek schoolhouse (Building A)

Building A, consisting of the 1891 weatherboard schoolhouse and the former 1907 Cudgera Creek schoolhouse at Tumbulgum Public School (Photograph 1.19 to Photograph 1.24) is a vernacular timber structure that historically served as a schoolhouse and was used as classrooms until the 2022 floods. It remains a central focal point of the school, surrounded by modern facilities, some of which are located as close as one meter from the building. Architecturally, it exemplifies the rural schoolhouse design typical of the late nineteenth and early twentieth centuries, featuring a symmetrical layout and multi-paned sash windows on all elevations.

The structure is primarily clad in timber weatherboards, supported by timber bearers and joists elevated above flood-prone ground. Key architectural features include timber boxed eaves, expansive sash windows, and high ceilings, all of which contribute to its distinctive vernacular style. The steeply pitched gabled roof, clad in corrugated iron, is a hallmark of the period, with subtle timber accents at the gable apex enhancing its character.

Although generally in good condition, Building A is situated below the flood planning level, making it vulnerable to flooding (Henry & Hymas Consulting Engineers, 2024b, p.1).

According to the *Asbestos and Hazardous Materials Pre-Demolition Assessment*, non-friable asbestos was identified in multiple areas, including 2 m² of fibre cement sheeting between timber beams, rated as poor

condition and low risk (Tetra Tech Coffey Pty Ltd, 2024b, p.3). An additional 30 m² of suspected asbestos was found in the high-level eaves of the southern building, considered stable and low risk.

Lead-based paint was found in various locations, with concentrations of 1.4% w/w in 5 m² of metalwork on the raised walkway and 0.15% w/w on 800 m² of external walls. Other areas showed lower lead levels, under 0.005% w/w. The report also identified synthetic mineral fibres (SMF) in insulation and polychlorinated biphenyls (PCBs) in light fittings, while ozone-depleting substances were detected in air conditioning units (Tetra Tech Coffey Pty Ltd, 2024b, p.4).

Photograph 1.19 **1891 weatherboard schoolhouse (Building A), viewed from the south boundary, facing south west**

Photograph 1.20 **1891 weatherboard schoolhouse (Building A), viewed from the interior, facing north west**

Photograph 1.21 **Former 1907 Cudgera Creek school building (Building A), viewed from the south boundary, facing south west**

Photograph 1.22 **Former 1907 Cudgera Creek school building (Building A), viewed from the interior, facing north**

Photograph 1.23 **Connection to the former 1907 Cudgera Creek school building (Building A), viewed from the interior, facing north**

1.3.3 Heritage items in the vicinity

The following heritage item in the vicinity has been noted, with partially obstructed sightlines to and from Tumbulgum Public School.

i Tumbulgum HCA (LEP # C4)

The *Tumbulgum HCA* (LEP # I16) is located 76 m west of the subject site and contributes to the streetscape setting and character. Partially obstructed views exist between *Tumbulgum HCA* (LEP # I16) and Tumbulgum Public School.

The following description of the Tumbulgum HCA and these views has been extracted from the *Tweed Development Control Plan* 2008 (TDCP 2008):

> The village is bounded by Tweed Valley Way to the east, Government Road to the south and Riverside Drive and the Tweed River to the west and north. The heritage conservation area is comprised predominantly of the land facing the Tweed River along Riverside Drive. Tumbulgum is the location of the original settlement of the Tweed Valley. The HCA is located at the confluence of the Tweed and Rous Rivers, which together with the surrounding Border Ranges forms a significant landscaped backdrop to the HCA. The resulting river views and scenic vistas, the river bank parkland, landscaping and direct access to the river foreshore and the sense of spaciousness this affords the residential lots, is inherent to the character of Tumbulgum.

1.3.4 Landscape

The landscaping elements at Tumbulgum Public School, as outlined in the *Arboricultural Impact Assessment* (Northern Tree Care, 2024) include a variety of significant tree species, most of which are positioned around the perimeter of the school. These include notable mature species with high retention value such as Pecan, Davidson Plum and Camphor Laurel, Tea, Rainforest and Macadamia trees (*Macadamia integrifolia*). Many of these trees are in good condition and have been assigned high retention values. In addition, it has been noted that a tree, a descendant of the original Aleppo, 'Lone Pine' from Gallipoli, is located on the subject site and was dedicated to the ANZACs. The tree is in poor condition due to the subtropical climate it is situated in (Photograph 1.26).

Despite the landscaping features, the school has natural sightlines to the sugar cane fields in the west, with partially obstructed views to the Tumbulgum HCA.

Photograph 1.24 General landscaping, viewed from the east boundary, facing east

Photograph 1.25 General landscaping, viewed from the south boundary, facing north

Photograph 1.26 Lone Pine from Gallipoli descendant, viewed from the east boundary, facing east

Photograph 1.27 General landscaping, viewed from the north boundary, facing south

1.3.5 Moveable and non-moveable items

In the context of heritage conservation, movable heritage items are objects or structures that can be relocated, replaced, or repositioned without causing significant damage or a reduction in their historical, cultural, or social significance. These items maintain their significance and integrity when moved, provided their context is appropriately preserved or adapted.

Non-movable heritage items, on the other hand, are those where relocation would result in substantial damage or a loss of significance. Two site specific examples are the 1891 weatherboard schoolhouse and the former 1907 Cudgera Creek schoolhouse: these items are tied to a specific place or setting, and their historical value is closely connected to their original location.

Table 1.5 outlines the classification of heritage items at Tumbulgum Public School, categorising them as either movable or non-movable. The table evaluates each item's condition, as well as its social and heritage significance.

Table 1.5 Physical analysis of move and non-moveable items

Moveable and non-moveable heritage item	Images	Description and condition	Moveable	Non-moveable	Social significance	Heritage significance
Ian Buckley Rainforest memorial plaque		The Ian Buckley Rainforest memorial plaque, also movable is located within the Ian Buckley Rainforest. This modestly sized plaque displays visible damage, likely from age and exposure.	☒	☐	☒	☐
School sign and bell		The school bell and sign is early a movable item of heritage significance. Positioned outside between Building A and Building E and is noted to be in good condition.	☒	☐	☐	☒
Painted elevations		The painted elevations on Building A serve as a decorative feature designed for the primary school audience. These graphics, contribute to the building's aesthetic, aligning its current educational purpose.	☐	☒	☒	☐
ANZAC Aleppo Pine memorial tree		The original Aleppo, 'Lone Pine' from Gallipoli, is located on the subject site and was dedicated to the ANZACs. The tree is in poor condition due to the subtropical climate it is situated in and has been recommended for removal	☐	☒	☒	☐
ANZAC Aleppo Pine memorial plaque		The memorial plaque, also movable is located next to the Aleppo Pine tree. This modestly sized plaque displays visible damage, likely from age and exposure.	☒	☐	☒	☐
Memorial garden signs		The memorial garden sign is in poor condition and display signs of visible damage.	☒	☐	☒	☐

Moveable and non-moveable heritage item	Images	Description and condition	Moveable	Non-moveable	Social significance	Heritage significance
Interpretation panel		The interpretation panel is a modestly sized plaque that displays visible damage, likely from age and exposure.	☒	☐	☒	☐

1.4 Comparative analysis

In order to understand the relative significance of the place, that is, how rare or representative it may be, a comparative assessment of known sites with similar heritage values is undertaken. Since Section 2 Tumbulgum Public School has identified the built heritage significance of Tumbulgum Public School, a comparative analysis will be conducted for the 1891 schoolhouse. The assessment aims to determine the level of rarity, uniqueness, representativeness, and distinctiveness of the building, providing insights into its importance in its local context, as well as its broader significance across NSW.

1.4.1 Methodology

The purpose of this comparative analysis is to evaluate the significance of the1891schoolhouse building in relation to other structures with similar historical or community associations. In selecting sites for comparison, key factors considered to identify education structures that share similarities with the schoolhouse building were:

- the period of construction to enable a meaningful comparison of design and construction methodology
- comparable construction materials
- the rural locality's influence on architectural style and materials used in buildings within specific regions.

The State Heritage Inventory served as the source for this information and was limited to listed items that provided enough data to make a fair comparison, leading to the identification of four comparable school buildings, as outlined in Table 1.6. Many buildings from the late Victorian–early Federation period was excluded because they did not fit the criteria, being made of stone, or because they were too early or too late.

The 1891 schoolhouse (Building A) at Tumbulgum Public School is representative of a vernacular style, which was common for schools of the era. It is therefore no surprise that, as a Department of Education designed building, the structure shows similarities in design and materials of timber weatherboard educational buildings in other rural areas.

Four schools matching the initial key factors were identified and compared Table 1.6) and a summary of these assessments is discussed below (Table 1.7).

Table 1.6 Comparative analysis – built heritage

Item name	Description	Listing
Public School – Tingha (1905–1906) Tingha, NSW	The school complex includes a number of timber weatherboard buildings completed at various time to meet the needs of primary and secondary students. The various buildings have a gabled roof and large timber double hung windows. The windows have small panes at the top with smaller skylights. There are a number of large brick chimneys set within the roofline. Verandahs are on a number of the buildings. Some of the timber buildings show where an	Local (I122) *Guyra Local Environmental Plan 2012* (now in the Armidale LGA)

Item name	Description	Listing
	extension has been added. The main building close to Ruby Street has an unusual roofline with the verandah set within it.	
Wee Jasper School (1899–1932) Wee Jasper, NSW	The 1899 building at Wee Jasper Public School is a timber weatherboard building with a steeply pitched gabled roof. The walls are clad with rusticated weatherboards and the roof is corrugated steel. Windows are four over four-pane double hung sashes. A weather shed was built in 1933, shortly after the relocation of the school.	Local (I133) *Yass Valley Local Environmental Plan 2013*
Public school and saddlery (1894) Copmanhurst, NSW	Located on the corner of Prescott and Sussex Streets, the school comprises several buildings including the timber school building has several alterations and additions with the clerical offices. The timber schoolhouse has a pitched roof with skillion verandah at the front.	Local (I66) *Clarence Valley Local Environmental Plan 2011*
Former weatherboard school (1891) Cambewarra Village, NSW	Large weatherboard and iron building. Essentially vernacular and modest in appearance. Four paned double hung windows.	Local (158) *Shoalhaven Local Environmental Plan 2014*

1.5 Comparative heritage sites

1.5.1 Public School – Tingha

Tingha Public School shares a number of architectural features with the 1891 building (Building A) at Tumbulgum Public School. Constructed in weatherboard with a galvanised iron roof and three brick chimneys, the Tingha school building shares similar window styles with Tumbulgum, being multi-paned timber sash, although Tingha has transoms over the top (Photograph 1.28). In addition, both buildings were extended over time to suit the needs of the growing communities.

The statement of significance is as follows:

> The Public School has historic, streetscape, aesthetic, social and representative significance. Throughout NSW, the Education Department constructed numerous schools of varying sizes in response to applications by local residents. The application for this school was made at a time of the development of Tingha as a mining community. Thus, the school is historically linked to the establishment of Tingha as an important mining community. The aesthetic significance arises from the architecture of the timber school and its relationship to the principal's residence. Social significance arises from the continued use of the school by the local community particularly in reference to wider social celebrations. This social significance is demonstrated by the numbers who attended the Tingha Public School Reunion from 1-3 October 1988.

In parallel events to Tumbulgum Public School, Tingha was established as the town grew because of its primary industry, which in Tingha's case was mining, and in Tumbulgum was cane farming and milling.

Photograph 1.28 Tingha Public School

Source: SHI #I122

1.5.2 Wee Jasper Public School, 6443 Wee Jasper Road, Wee Jasper

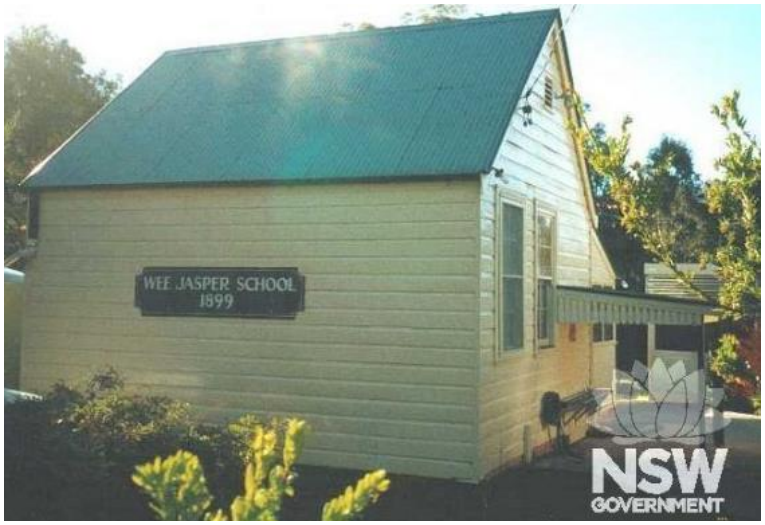
Wee Jasper Public School is a locally significant 19th century school building located in Wee Jasper.

The physical description of Wee Jasper Public School is as follows:

> The 1899 building at Wee Jasper Public School is a timber weatherboard building with a steeply pitched gabled roof. The walls are clad with rusticated weatherboards and the roof is corrugated steel. Windows are four over four pane double hung sashes.
>
> A weather shed was built in 1933, shortly after the relocation of the school.
>
> A 1915 residence is also part of the group.

The school was originally built in 1899 close to the Goodradigbee River but was moved to its current location for the Burrenjuck Dam in 1931/1932 (SHI #I133).

Wee Jasper and Tumbulgum share architectural similarities in their weatherboard construction and what appear in the photograph (Photograph 1.29) to be multi-paned sash windows.



Photograph 1.29 Wee Jasper School after re-location

Source: SHI # I133

1.5.3 Public school and saddlery, Prescott Street, Copmanhurst, NSW

The comparative analysis between Tumbulgum Public School and the item located at 11 Prescott Street, Copmanhurst, NSW, highlights their architectural similarities. Notably, Tumbulgum Public School's weatherboard structure was built two to three years prior to the 1894 schoolhouse at 11 Prescott Street. (Photograph 1.30).

Despite their individual histories, both buildings have maintained their original character, used in the context of education, and architectural integrity. Tumbulgum Public School's 1891 schoolhouse continued to serve as a classroom and holds historical significance, similar to the item at 11 Prescott Street, Copmanhurst, NSW. Tumbulgum Public School was designed by the designed by the Government Architect's Office and built by Mr H Mimnaw, while the building in Copmanhurst was built by the Strass Brothers.

Photograph 1.30 Public school and saddlery

Source: Google Maps. September 2022

1.5.4 Former Cambewarra School, Cambewarra Village, Shoalhaven, NSW

The comparative analysis between Tumbulgum Public School and the item located on the Main Road in Cambewarra Village, NSW, highlights their architectural similarities and historical context in the Victorian era. Both schools served as schools in rural regions of NSW. Both buildings were constructed on piers or stumps, providing support and ventilation beneath the structures (Photograph 1.31).

The former Cambewarra School, built in 1891, was overseen by the Government Architect's Office with the involvement of W E Kemp. Similarly, the Tumbulgum 1891 schoolhouse was designed by the Government Architect's Office but construction was overseen by local tender winner Mr H Mimnaw. Over the years, both schools have undergone modifications and additions, with Tumbulgum Public School experiencing repairs, extensions, demolition, and facility additions throughout the twentieth century, and the former Cambewarra School undergoing extensions and alterations, including the relocation of the weather shed and the demolition of the old schoolhouse and teacher's residence.

Despite their individual histories and locations in different rural regions of NSW, both buildings have retained their original character and architectural integrity, reflecting the influence of late nineteenth-century design in their respective structures.

Photograph 1.31 Former Cambewarra School

Source: State Heritage Inventory. July 2020

Table 1.7 Built Heritage Comparative Analysis – summary

Item name	Criterion comparison
Public School – Tingha (1905–1906) Tingha, NSW	**Historical significance:** Tingha Public school was constructed in 1905–1906, 14 years before Tumbulgum Public School. **Historical Association**: Both Tingha Public School and Tumbulgum Public School have historical associations with local industrial communities. **Aesthetic/creative/technical achievement**: Both schools share similar architectural features including fabric, form and function. **Social, cultural, spiritual Significance:** Both schools played a significant role as an education centre for the local community for over a century. **Research Potential:** Tingha Public School does not have research potential associated with it that meets the threshold of significance. **Rarity:** Both schools are not known to be rare in the landscape. **Representativeness:** Tingha Public School and Tumbulgum Public School are representative of the early colonial government policies that ensured schooling was provided to rural communities.
Wee Jasper School (1899–1932) Wee Jasper, NSW	**Historical significance:** Wee Jasper Public School and Tumbulgum Public School share the same historical late nineteenth century context. **Historical Association:** Wee Jasper is not known to have any historical associations that are comparable to Tumbulgum Public School. **Aesthetic/creative/technical achievement:** Both schools are comparable in architectural features. **Social, cultural, spiritual Significance:** Wee Jasper Public School and Tumbulgum Public School have provided education to the local community for over a century. **Research Potential:** Wee Jasper Public School was moved from its original location in the 1930s. This criterion is not directly comparable. **Rarity:** Both schools are not known to be rare in the landscape. **Representativeness:** Wee Jasper and Tumbulgum Public School are a good example of a late nineteenth / early twentieth century school building.
Public school and saddlery (1894) Copmanhurst, NSW	**Historical significance:** Both schools have historical significance as being one of the many small rural schools funded by the NSW Government. **Historical Association:** Whilst not stated specifically in the listing, the Copmanhurst Public School and Saddlery has associations with the wider Copmanhurst Community, much like Tumbulgum Public School as being a fundamental pillar of social connection in the community. **Aesthetic/creative/technical achievement:** Both schools share architectural similar design and elements. **Social, cultural, spiritual Significance:** Both schools played a significant role as an education centre for the local community for over a century. **Research Potential:** It is unknown the research potential at Copmanhurst Public School. This criterion is not directly comparable. **Rarity:** Both schools are not known to be rare in the landscape. **Representativeness:** Copmanhurst Public School is not known to have comparable representativeness significance with Tumbulgum Public School.

Item name	Criterion comparison
Former weatherboard school (1891) Cambewarra Village, NSW	**Historical significance:** Both schools were established in a similar time period of late nineteenth / early twentieth century period, however Cambewarra school earliest phases extend to 1859. **Historical Association:** Cambewarra school does not seem to have any significant historical associations. **Aesthetic/creative/technical achievement:** Aesthetically both schools are comparable as having similar fabric and form. **Social, cultural, spiritual Significance:** Both schools played a significant role as an education centre for the local community for over a century. **Research Potential:** It is unknown the research potential at Cambewarra Public School. This criterion is not directly comparable. **Rarity:** Both schools are not known to be rare in the landscape. **Representativeness:** Both schools are representative examples of early education centres in their local community.

2 Statement of significance

Tumbulgum Public School is of Historical (Criterion a), Aesthetic (Criterion c), Social (Criterion d), Research (Criterion e) and Representativeness (Criterion g) significance at a local level.

Schooling in Tumbulgum began in 1872, with Tumbulgum Public School officially established at its current site in 1891 following the subdivision of Tumbulgum Private Town. The original 1891 weatherboard schoolhouse remains intact on the site and has undergone various alterations and extensions over the twentieth century, reflecting the evolving needs of the community. These changes include the 1913 extension to the schoolhouse, the relocation of the 1907 Cudgera Creek school building to the site in 1977, and the addition of modern classroom and administrative structures. The development of Tumbulgum Public School over time mirrors the demographic shifts in the region, underscoring its significance as a central institution in the local community.

Tumbulgum Public School is locally significant for its association with the settlement and growth of the Tumbulgum area, reflecting broader historical developments in the region. Established in 1872, the school played a key role in the town's educational and social evolution, with its relocation in 1891 marking a major phase following the subdivision of Tumbulgum Private Town. The extant 1891 weatherboard schoolhouse remains central to the site, demonstrating the school's long-standing presence. The 1913 extension and the relocation of the 1907 Cudgera Creek school to the site in 1977 further illustrate changing demographics and the growing educational needs over the twentieth century. These expansions underscore the school's role as a hub in the community, contributing to its local historical significance.

The original 1891 schoolhouse (Building A) embodies the vernacular architectural style of rural schoolhouses in late nineteenth century NSW. Characterised by timber weatherboards, boxed eaves, expansive sash windows, and high ceilings, it retains its aesthetic qualities and contributes to the rural landscape of Tumbulgum.

Socially, Tumbulgum Public School holds strong significance for the local community, as schools in rural areas often serve as central institutions for identity and cohesion. Continuous community involvement, including petitions for improvements and expansions, highlights the school's enduring significance.

Archaeologically, the site holds low potential for archaeological resources, relating to Norton's cottage, the 1891 teacher's residence and early school structures. However, there has been substantial later ground disturbance in and it is considered unlikely that these areas would retain substantial or intact deposits that could contribute to the understanding of rural education in the late nineteenth and early twentieth centuries.

2.1 Significance of the proposed work area

Table 2.1 Significance assessment

Criterion	Assessment
a) An item is important in the course or pattern of NSW's (or the local area's) cultural or natural history (Historical Significance).	The creation of a school at Tumbulgum in 1872 indicates the importance of education in the early settlement of Tumbulgum. The relocation of Tumbulgum School in 1891 reflects the shift of the economic centre from North Tumbulgum to the Private Town of Tumbulgum, contributing to the growth and development of the current township. The centenary celebration in 1981 further reinforces the school's historical importance, emphasising its role as an educational institution over time. Overall, the school's historical associations demonstrate its importance in shaping the educational and social landscape of the local area. Building A, including later additions, is an important contributor to the school landscape and is symbolic of the development of the school and the importance of education in the town's development and security. Archaeological resources and relics associated with the former 1891 teacher's residence and earlier school structures have the potential to contribute to the history of Tumbulgum Public school and schooling in the local area. **Tumbulgum Public School meets Criterion (a) for local significance based on its ability to demonstrate the course of history in the local area.**
b) An item has strong or special association with the life or works of a person, or group of persons of importance in NSW's (or the local area's) cultural or natural history (Associative Significance).	Evidence that the school has strong or special associations with the notable persons or groups has not been found. **It is not known if Tumbulgum Public School justifiably meet Criterion (b).**
c) An item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW (or the local area) (Aesthetic Significance).	Tumbulgum Public School is located towards the east boundary of the Tumbulgum township, at the junction between the town and farmland. The school has landmark qualities as a school in small township in a rural area. In addition, Building A is characteristic of late nineteenth century schoolhouses built in rural regions and retains its aesthetic qualities. **Tumbulgum Public School does meet Criterion (c).**
d) An item has a strong or special association with a particular community or cultural group in NSW (or the local area) for social, cultural or spiritual reasons (Social Significance).	Community consultation was not undertaken for this project; however the school is arguably a source of community focus, as most schools would be. Its establishment is closely linked to the growth of Tumbulgum Private town, highlighting its significance in the community's development. Educators and community members have made significant contributions to the school's growth and values, emphasising its role as a cornerstone of the local community. More research should be undertaken to understand the ties that the current community has with the school. Petitions to the Education Department from school teachers and the PCA requesting repairs and additions following its construction in 1891 demonstrates the importance of the schoolhouse as a place of education and community. Current community feelings about Building A are not known. **Tumbulgum Public School meets Criterion (d) for local significance due to its strong and special association with the local community for social, cultural, and spiritual reasons.**

Criterion	Assessment
e) An item has the potential to yield information that will contribute to an understanding of NSW's (or the local area's) cultural or natural history (Research Significance).	Tumbulgum Public School has research potential in archives, documents, and oral history, which can provide valuable insights into the evolution of education in the region, educational practices of the past, and its impact on the local community. Archaeologically, the site holds low potential for archaeological resources, relating to Norton's cottage, the 1891 teacher's residence and early school structures. However, there has been substantial later ground disturbance in and it is considered unlikely that these areas would retain substantial or intact deposits that could contribute to the understanding of rural education in the late nineteenth and early twentieth centuries. **Tumbulgum Public School meets Criterion (d) for local significance due the potential to yield information that will contribute to an understanding of NSW's and Tumbulgum's cultural or natural history**
f) An item possesses uncommon, rare or endangered aspects of NSW's (or the local area's) cultural or natural history (Rarity).	Tumbulgum Public School is not rare at a local or a State Level. However, vernacular timber school buildings in the region will become rarer as they are removed for rebuilding and flood recovery. In the greater area of NSW, these types of building continue to operate as schools. **Tumbulgum Public School does not meet Criterion (f).**
g) An item is important in demonstrating the principal characteristics of a class of NSW's (or the local area's) cultural or natural places or environments (Representativeness).	Tumbulgum Public School is historically, socially and aesthetically representative as an early public education institution in the local community. The existing historical school buildings further enhance its importance as a representation of the local area's educational heritage. Building A is representative of a class of regional late Victorian–early Federation public schools. Its architectural design, construction materials, and historical role in providing education to the local community demonstrate the principal characteristics of this class of places. The archaeological resources at Tumbulgum Public School have the potential to contribute to the historical and social representativeness of the school community. Tumbulgum Public School meets Criterion (d) for local significance as a good representation of a timber school building made in the vernacular style and rural school.

Source: (Department of Planning and Environment (NSW) 2023a, p.21)

2.1 Significant cultural landscapes

Cultural landscapes come in different forms, from having the appearance of wilderness to countryside to urban areas. The common factor that all cultural landscapes possess is they are a moment in time in a continuum of change created by human action (Meinig 1979).

Cultural landscapes can be broadly defined as designed, evolved or associative (Australia ICOMOS n.d.), with designed landscapes being largely represented by gardens; evolved landscapes by development; and associative landscapes being more indebted to the intangible, the religious or sacred. Cultural landscapes are also dynamic (Stuart 1997, p.28), regardless of the pace of change.

The significance of a landscape is dependent on how it reflects values of the heritage standards in Australia and the Burra Charter, which was developed to reflect the values of the community. Interpretability is an important factor, i.e. the ability of a landscape to tell a story is a socially and scientifically valuable attribute. So, while all human interactions with nature result in the formation of cultural landscapes, significance varies depending on what values can be identified and interpreted.

Tumbulgum Public School is located near the Tumbulgum HCA, a site that has recognised the cultural and historical significance of the village and its development. The Tumbulgum HCA focuses on the historical settlement patterns and the town's relationship with the Tweed River, reflecting its early role as a commercial and social hub. While not located in the HCA, Tumbulgum Public School contributes significantly to the cultural landscape, having served as a focal point of the community since its establishment in 1891. Its continuing role not only reinforces the historical narrative of the township but also preserves the rural and communal heritage that defines the area.

2.2 Significance of the Tumbulgum HCA

The subject site adjoins the Tumbulgum HCA and retains partial views to and from the HCA. Therefore, the Statement of Significance for the Tumbulgum HCA has been provided to assess the potential impact, as outlined in Section 4.

The below statement of significance for the Tumbulgum HCA is as described in the *Tweed Development Control Plan* 2008 (TDCP 2008):

> Tumbulgum is significant as an example of surviving early villages, representative of the pattern of settlement in the Tweed region. The European settlement pattern typically originates with the cedarcutters followed by dairying and crop farming settlers. Tumbulgum HCA is significant for its early origins and important role as the first major population and business area of the Tweed Valley, prior to the development of Murwillumbah. The village of Tumbulgum is significant for its location at the junction of the Rous and Tweed Rivers and the contribution this makes to the historic development of the village and the settlement of the region. In the 19th century transport for goods such as cedar, as well as people, relied heavily upon the rivers and the location and growth of Tumbulgum was intrinsically connected to the river junction. Evidence of the early settlement is also demonstrated in the nearby 'pioneer' cemetery.
>
> The village is significant aesthetically for its surviving early buildings. Within the village there are a number of places that contribute aesthetically to the town and provide important evidence of the early origins and its occupation. Of note are the Tumbulgum Tavern (est 1897), the Community Hall, Tea House and Residence, Public School, Corner Store/Café, St Peters Church (now Tweed River Chapel) and the Ferry Approach. The built form of the village and the street layout is distinguished by its response to the location adjacent to the river, managing flood risk, through elevated, predominantly timber buildings on narrow lots addressing the river.
>
> Tumbulgum is significant as a surviving example of a typical early villages, occurring on river banks in the Tweed region. The important setting of the village site at the junction of the Rous and Tweed Rivers is a landmark in the region. The alignment of Fawcett Street with the mouth of The Rous River and the ferry approach is a particularly important view. The southern and northern approaches along Riverside Drive as well as the river edge also contribute to the outstanding landscape setting of the village.
>
> Originally the area was home to the indigenous people known as the Bundjalung. The area was accessed by cedar-cutters from around the 1820s and a settlement developed at the junction of the Rous and Tweed rivers. The settlement was one of the first villages established by Europeans in northern NSW from around 1840 and became known as 'The Junction' or 'Tweed Junction'. The village developed through the 19th century and around 1880 the local people changed the name to 'Tumbulgum', which is reported to be of indigenous origins. The village prospered and vied for commercial supremacy with Murwillumbah until the railway was established in 1897, followed by a bridge in 1901 providing the impetus for Murwillumbah to become the major town centre for the region. The village of Tumbulgum survives as a picturesque village of historic buildings with spectacular views across the Tweed River to Wollumbin/Mt Warning.

3 Proposed works

3.1 The proposal

The proposed works involve the demolition of the significant 1891 weatherboard schoolhouse and former 1907 Cudgera Creek School building (Building A), alongside non-significant contemporary learning spaces (Building E), temporary classrooms. The proposed works also aim to demolish ancillary structures such as temporary storage containers, and covered walkways. The project will be carried out in two stages, supported by specialist consultant reports such as this SoHI.

3.1.1 Demolition of buildings and structures

The proposed works included under this REF include:

- Site preparation including site establishment works and earthworks
- Demolition of the existing buildings
- Construction of a new elevated school building with at-grade (undercroft) amenities and storage including:
    - Ground Level:
        - Open undercroft space for covered outdoor learning and play
        - male and female amenities and accessible toilet / change room facility
        - cleaners store
        - equipment store
        - sport equipment store
    - Raised Level:
        - new administration block comprising clerical, admin, staff room, sick bay and male, female and accessible amenities
        - 2 new general learning spaces with learning commons and multipurpose space
        - new canteen facilities with open servery space
        - mechanical plant
        - store room
        - male, female and accessible amenities
        - new hard and soft landscaping

In addition, an application for a tree removal permit has been lodged with Tweed Shire Council.

3.1.2 Removal of tress

According to the *Arboricultural Impact Assessment Report* (Northern Tree Care, 2024) for Tumbulgum Public School, the following tree removals and modifications are required to facilitate the new construction:

- Trees to be removed:
  - Tree #60, #68, and #69: Rainforest sp
  - Tree #95: Leopardwood (*Libidibia ferrea*)
  - Tree #109: African Tulip (*Spathodea campanulata*)
  - Tree #110: African Tulip (Spathodea campanulata)
  - Tree #111: Teak (*Flindersia australis*).
  - Tree #190: Rainforest Sp
  - Tree #191: Alexander Palm (*Archontophoenix Alexandrea*)
- Trees to be pruned for access (not proposed for removal):
  - Tree #94: Weeping Fig (*Ficus benjamina*)
  - Tree #96: Paperbark (*Melaleuca quinquenervia*)
  - Tree #112: Camphor Laurel (*Cinnamomum camphora*)

These adjustments are necessary to accommodate the new building footprint and construction operations.

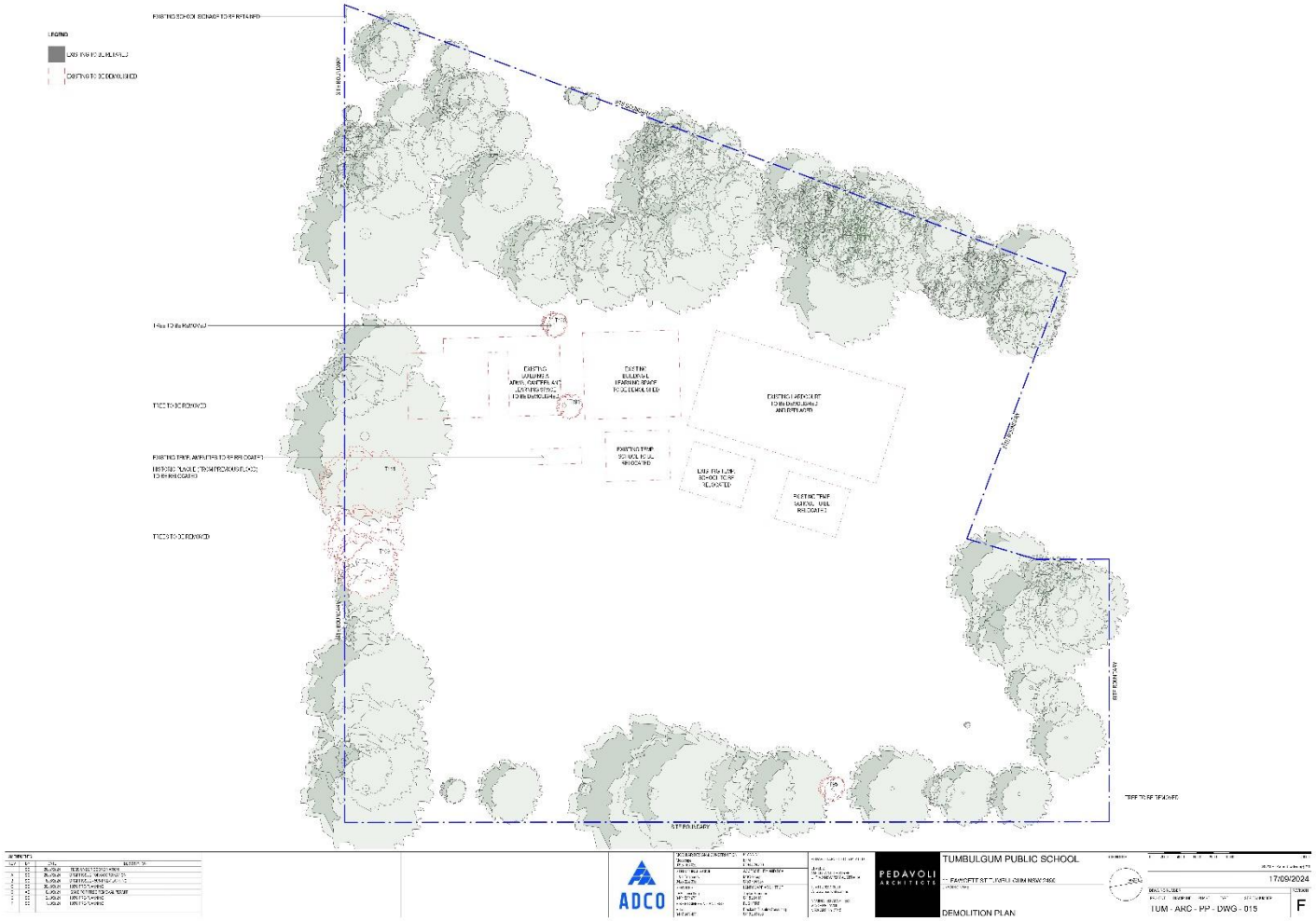


Plate 3.1 Tumbulgum Public School demolition plan

Source: Pedavoli Architects

Plate 3.2 Tumbulgum Public School proposed site plan

Source: Pedavoli Architects

Plate 3.3 Tumbulgum Public School proposed elevation plan

Source: Pedavoli Architects

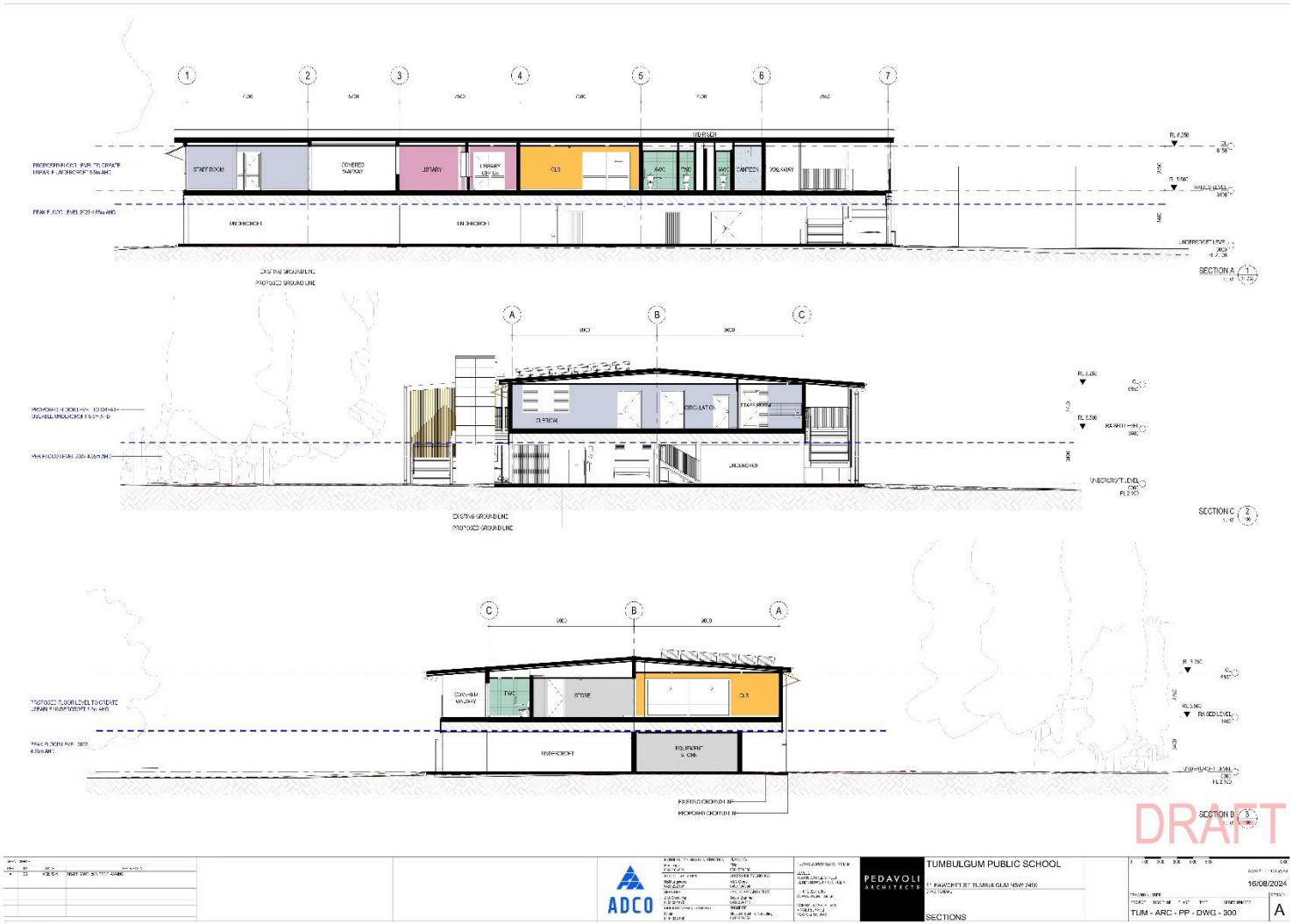


Plate 3.4 Tumbulgum Public School proposed elevation sections

Source: Pedavoli Architects

Plate 3.5 Tumbulgum Public School proposed elevation plan

Source: Pedavoli Architects

Plate 3.6 Tumbulgum Public School proposed renders

Source: Pedavoli Architects

LEGEND
SITE BOUNDARY
EXISTING TREES TO BE RETAINED
TREE PROTECTION ZONE
EXISTING TREES TO BE REMOVED AS IDENTIFIED IN ARBORIST REPORT
EXISTING TREES TO BE PRUNED
EXISTING TREE - VERY HIGH RETENTION VALUE
EXISTING TREE - HIGH RETENTION VALUE
EXISTING TREE - MEDIUM RETENTION VALUE
EXISTING TREE - LOW RETENTION VALUE
EXISTING TREE - VERY LOW RETENTION VALUE
NOTE:
THIS PLAN OUTLINES THE CROWN WIDTH, TPZ AND VALUE OF THE EXISTING TREES AT TUMBULGUM P.S
THIS PLAN HAS BEEN PRODUCED USING INFORMATION TAKEN FROM NORTHERN TREE CARE ARBORICULTURAL REPORT 26 SEPTEMBER 2024.
REFER TO NORTHERN TREE CARE ARBORICULTURAL REPORT (26 SEPTEMBER 2024) FOR TREE SPECIES
TaylorBrammer
LANDSCAPE: TREE RETENTION/ REMOVAL PLAN
TUMBULGUM PUBLIC SCHOOL
11 FAWCETT STREET TUMBULGUM NSW 2490
1:250 @ A1
03/10/2024
TUM - LAN - PP - 0011 - F

Plate 3.7 Tumbulgum Public School tree removal and retention plan

Source: TaylorBrammer

BAWDEN STREET
SECONDARY ENTRY
WASTE MANAGEMENT AREA
SHADE SAIL
FAWCETT STREET
BIKE RACK (9 SPACES)
PROPOSED BUILDING
HIGH POINT
ROOF LINE OVER
NEW ALEPPO PINE PLANTING
1:130
LEGEND
Site boundary
Existing Contour
Proposed Spot Level
Trees to be retained
Proposed trees
1000mm sandstone log seat
2000mm sandstone log seat
Retained cultural calendar wall
Growing gardens
Nature play elements
Turf
Concrete paving
Decomposed granite paving
Washed playground sand
New mass planting
DIALOGUE
1 Seated waiting area and entry planting to the front entry of the school to provide a waiting area for parents
2 Retain existing trees to keep the existing character of the school and provide a wild play area
3 Bush Tucker planting along bush track to accompany Yarning circle and outdoor learning opportunities to Connection to Country
4 Bush track loop provides an educational journey through the trees and bush tucker planting leading to the Yarning circle. (Bush Tucker planting is indicative and requires CWC consultation)
5 Yarning Circle to support outdoor learning opportunities for small groups to Connection to Country and be a feature to the school (Yarning Circle is indicative and requires CWC consultation)
6 Mulched area under the existing tree canopy to provide opportunity for natural play elements in an easily supervised area
7 Retain existing play equipment in its current location to provide structured play
8 Raised growing garden for education about food and indigenous planting next to proposed GA shed for ease of storage and existing 6 seasons wall as feature to the growing garden
9 Existing Cultural Calendar ball wall retained and extended functioning as a ball wall from the MUGA court and acts as a learning tool for indigenous planting and feature to the growing garden
10 New GA shed located to provide storage and direct access for the growing garden and play area
11 Like for like replacement of MUGA court to provide flexible sporting opportunities consolidated into active play area
12 Buffer planting along northern edge of active play area to create a buffer between the neighbouring property
13 Sandpit to provide junior play opportunities and provide a shaded seating space to the active play area. The Aleppo pine is proposed as the feature tree for the space providing future shade
14 Open playing field maximised to allow for flexible sports activity
TaylorBrammer
LANDSCAPE: CONCEPT PLAN
TUMBULGUM PUBLIC SCHOOL
11 FAWCETT STREET TUMBULGUM NSW 2490
1:250 @ A1
05/09/2024
TUM - LAN - PP - 0010 - A

Plate 3.8 Tumbulgum Public School proposed landscaping

Source: TaylorBrammer

Plate 3.9 Tumbulgum Public School proposed landscaping elevations

Source: TaylorBrammer

3.2 Background

3.2.1 Pre-lodgement consultation

As part of the pre-lodgement process, consultation was undertaken to gather advice to inform the proposed new development and additions at Tumbulgum Public School. This pre-lodgement consultation assessed compliance upgrade risks, buildability factors related to retaining existing structures, and the overall project feasibility concerning hazardous materials and refurbishment. The outcome was:

- *Baseline Historical Assessment* from November 2022 (EMM Consulting Pty Ltd, 2022), and the *Northern Rivers School Cluster - Existing Heritage Scope Review,* from 31 May 2023 (ADCO, 2023), which examined the heritage aspects of the school.

- *Preliminary Heritage Design Advice* from May 2024 (EMM Consulting Pty Ltd, 2024) (Appendix A).

- Additionally, ENV Solutions was engaged to conduct a *Pre-Remediation Mould Investigation* report in August 2022. This report detailed the extent of mould and bacteria contamination in several school buildings, recommending extensive remediation (ENV Solutions, 2022). The report detected *Aspergillus/Penicillium*-like mould, *Cladosporium*, and *hyphal fragments* present in multiple areas. These mould types include species that are known to be immuno-compromising, allergenic, and/or mycotoxin producers, posing serious health risks. The investigation also highlighted Chrysotile asbestos found in packers within the basement, requiring asbestos abatement procedures.

- *Asbestos and Hazardous Materials Pre-Demolition Assessment* was undertaken by Tetra Tech Coffey to produce a Contamination Investigation report in May 2024. The report identified non-friable asbestos in various areas, including 2 m² of fibre cement sheeting between timber beams, rated as poor condition and low risk. An additional 30 m² of suspected asbestos was found in the high-level eaves of the southern building, considered stable and low risk. The report also found lead-based paint on 5 m² of metalwork on the raised walkway (1.4% w/w) and 800 m² of external walls (0.15% w/w). Other hazardous materials included synthetic mineral fibres (SMF) in insulation, polychlorinated biphenyls (PCBs) in light fittings, and ozone-depleting substances in air conditioning unit (Tetra Tech Coffey Pty Ltd, 2024).

- An inspection carried out by *Henry & Hymas Consulting Engineers to produce* an *Existing Conditions Report For Tumbulgum Public School* in May 2024 (Henry & Hymas Consulting Engineers, 2024). The report assessed the structural integrity of the school buildings, noting key elements such as timber wall and roof framing, timber bearers and joists, and concrete and masonry elements. The report found that Building A was generally in good condition but located below the flood planning level, requiring substantial costs for elevation to meet flood resilience standards. Building E, by contrast, was above the flood planning level and deemed suitable for long-term retention (Appendix B).

- *Project team input* (Appendix B). The project team provided input on key aspects of the redevelopment, including compliance with heritage and safety standards. MBC Consulting and Pedavoli Architects highlighted the extensive modifications needed to meet Australian Standards, the Building Code of Australia (BCA), and Disability Discrimination Act (DDA) requirements. This involved upgrading pathways, doorways, and installing ramps and lifts to ensure accessibility, while also addressing heritage considerations. ADCO's cost assessments demonstrated that demolition and reconstruction would be more cost-effective than attempting to retain and upgrade the existing buildings.

- *Community input* (Appendix C): In a letter dated 6 September 2024, Principal Genevieve Esgate of Tumbulgum Public School emphasised the pressing need for the school's reconstruction following significant flood damage 2.5 years ago. The letter highlighted the inadequacy of temporary demountable

buildings for long-term use and stressed the importance of rebuilding to create a flood-resilient facility that would restore normalcy for students and staff while boosting enrolment and community cohesion.

3.2.2 Consideration of alternatives

An options assessment was conducted during the pre-lodgement consultation phase to explore the possibility of preserving the heritage structure, being Building A. The assessment evaluated the technical and financial feasibility of three alternatives, as outlined in Table 3.1, Table 3.2, and Table 3.3. The findings are summarised as follows:

- **Option 1 – Retain, raise and reuse:** Henry & Hymas Consulting Engineers and MBC Consulting determined that Tumbulgum Public School's buildings are below flood level standards and need to be raised. Raising Building A was deemed impractical due to structural risks, high costs, and heritage concerns. Raising the building to meet flood standards would involve significant modifications, such as splitting the structure and adding steel gantries, costing around $550,000 and resulting in the loss of heritage fabric. Hazardous asbestos, PCBS, SMF's and lead paint, identified by Tetra Tech Coffey, must be removed for health and safety reasons. This process involves stripping away significant amounts of the original building materials, or fabric that hold historical significance. As a result, the removal of these hazardous materials not only considers safety but also diminishes the heritage significance of the site, as much of the building's fabric contributing to its historical integrity is lost in the process. Mould remediation would involve replacing damaged timber and require costly air quality monitoring, while compliance with Building Code of Australia (BCA) and the Disability Discrimination Act (DDA) standards would necessitate major modifications, such as widening doorways and adding ramps, leading to a loss of original features. Energy efficiency upgrades would also alter the building's historical appearance and incur high retrofit and maintenance costs. Overall, these options present significant financial, structural, and heritage challenges, making them less feasible.

- **Option 2 – Retain as a managed ruin:** Preserving key heritage elements of Building A, such as the external façade and structural timbers, for display purposes only presents challenges due to the building's location in a flood zone. While this approach avoids practical usage, it poses ongoing risks of flood damage. Stabilising the structure would require engineering solutions to protect against collapse, with flood-resistant methods adding to costs. Remediation of hazardous materials, like asbestos and lead, would need to be completed to account for flood risks, potentially spreading contaminants during floods, particularly endangering children. The high costs associated with remediation would be further complicated by the need for flood containment measures. Ongoing maintenance and monitoring of the preserved sections would be required, but frequent flooding would increase the costs and burden of inspections and repairs. These long-term strategies, coupled with flood mitigation efforts, would result in significant operational and safety challenges.

- **Option 3 – Demolish and rebuild:** Demolishing the existing structure would completely remove the building to make way for a new, modern design. While this would result in the full loss of heritage significance, a new building could incorporate historical elements to maintain a connection to the site's history. Demolition is estimated to cost $30,000, a relatively affordable option, but it would mean the complete loss of the structure and associated heritage significance. A new flood-resilient building could be constructed to meet BCA and DDA standards, offering flexibility for modern compliance and functionality. Construction costs will vary based on design and materials, but they are likely to be more predictable and manageable compared to preserving the existing structure. Initial community feedback has indicated no major objections to the demolition, though formal social impact assessments are still pending. While the loss of the heritage structure could affect community identity, no significant resistance has emerged so far. Incorporating heritage design elements into the new structure could help preserve a sense of continuity, though it would add to construction costs. Ultimately, demolition simplifies future use, maintains

compliance with modern standards, and offers the opportunity to honour the building's significance through design and other management strategies.

Table 3.1 Option 1 – Retain, elevate and reuse

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
Raising the building to meet flood levels	Henry & Hymas Consulting Engineers (Henry & Hymas Consulting Engineers, 2024) and MBC Consulting have assessed that the existing buildings at Tumbulgum Public Schools are below the required flood levels, needing to be raised to comply with modern flood resilience standards. This process involves splitting the existing structure, installing additional columns, and constructing steel gantries to support the raised segments.	• **Structural impact:** – Raising the building would involve substantial modifications, including splitting the structure into manageable sections, reinforcing it with new columns, and placing the segments onto steel gantries. – This process would involve major structural reinforcements, leading to a significant loss of original heritage fabric, including timber framing, internal linings, and weatherboard cladding. – The original timber bearers and joists would likely need replacement due to their compromised condition from repeated flooding, weakening the building's integrity • **Heritage impact:** Raising the building could diminish the historical significance of the structure, as its original form and setting would be altered by the necessary structural changes and the addition of steel gantries. – The extensive modifications required for raising the structure would diminish the building's historical significance. Its original form and materials, which contribute to its heritage significance, would be compromised by the necessary structural reinforcements and alterations. Adding steel gantries and other modern materials would alter the building's historical setting, diminishing its authenticity and the way	**Estimated raising cost:** Raising the building would cost approximately $400,000 for structural reinforcement and an additional $150,000 for internal fit-out. This makes the total cost for raising the building around $550,000.	While raising the building is technically feasible, it is not recommended due to the high costs, the substantial loss of heritage fabric, and the extensive structural changes required. The financial and heritage impacts make this option less viable. Alternative solutions should be considered to balance flood resilience and the preservation of the building's historical integrity at Tumbulgum Public School.

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
		it relates to its historical context within the Tumbulgum township.		
Remediate the hazardous asbestos and lead-based paint materials	Tetra Tech Coffey's Contamination Report (Tetra Tech Coffey Pty Ltd, 2024) identified non-friable asbestos in several areas, including 2 m² of fibre cement sheeting between timber beams, which was rated as being in poor condition and low risk. An additional 30 m² of suspected asbestos was discovered in the high-level eaves of the southern building, considered stable and low risk. The assessment also found lead-based paint contamination, including 5 m² of metalwork on the raised walkway with 1.4% w/w lead content and 800 m² of external walls with 0.15% w/w lead content. Other hazardous materials detected included synthetic mineral fibres (SMF) in insulation, polychlorinated biphenyls (PCBs) in light fittings, and ozone-depleting substances in the air conditioning unit.	• **Health risks:** – Asbestos: When disturbed, asbestos fibres can be inhaled, leading to severe health conditions such as lung diseases, including asbestosis, mesothelioma, and lung cancer. Asbestos poses a significant risk when airborne, necessitating strict control measures during its removal to prevent fibres from becoming airborne. – Lead: Lead exposure, especially through lead-based paint, can result in neurological, developmental, and cognitive problems, particularly in children. Lead dust or particles can be inhaled or ingested, making it a health hazard if not properly managed during remediation. – PCBs: Exposure to PCBs can lead to long-term health effects, including cancer, immune system suppression, reproductive issues, and endocrine disruption. The presence of PCBs in light fittings requires careful removal and disposal, as outlined in environmental safety regulations. – SMF and Ozone-Depleting Substances: Synthetic mineral fibres can cause respiratory irritation when inhaled, and the ozone-depleting substances found in air conditioning systems contribute to environmental harm. These substances must be handled carefully to prevent health risks and further environmental damage.	• **High remediation costs due to hazardous materials:** The costs associated with asbestos and lead-based paint removal are high due to strict compliance with Australian Standards and WHS regulations. Asbestos removal must be carried out by licensed contractors, adding significant expenses. Additional costs arise from the need for continuous health monitoring and long-term safety management. **Potential hidden costs:** There could be additional unforeseen expenses related to the discovery of further contamination during remediation, as well as future maintenance.	Remediating the hazardous asbestos, lead-based paint, and other materials identified at Tumbulgum Public School is technically feasible but requires a detailed and controlled process that adheres to strict health and safety regulations. The process would involve significant financial commitments, including the cost of removing hazardous materials, replacing affected heritage fabric, and ongoing monitoring for future safety. While remediation offers the benefit of retaining the structure, the intervention would result in the loss of some original heritage materials, thus impacting the heritage integrity of the building. This intervention is necessary for the long-term safety of occupants, but it comes with high financial and logistical challenges, requiring a balance between safety and heritage conservation.

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
		• **Removal:** – The removal of asbestos and lead-based paint must be handled by licensed contractors under strict compliance with Australian Standards AS 2601 (for asbestos) and AS 4361.2 (for lead-based paint), ensuring safe containment and disposal. The process requires specialised equipment and protective measures to ensure no airborne contamination occurs. • **Heritage impact:** – The removal of asbestos-contaminated materials would result in the loss of key original features, such as timber linings and external cladding. – Compliance with AS 4361.2 (Guide to Lead Paint Management – Industrial Applications) and AS 2601 would necessitate removing and replacing these materials, leading to a significant reduction in the building's heritage significance. • **Ongoing health and safety risks:** – Even after remediation, managing residual asbestos and lead-based paint risks requires continuous monitoring, as per WHS regulations. Long-term safety concerns and monitoring requirements complicate future use and management of the building.		
Remediate and monitor the mould	ENV Solutions Report (ENV Solutions, 2022) identified significant mould infestations across several areas, particularly within Building A at Tumbulgum Public School. Hazardous mould species such as	• **Health risks:** – Aspergillus/Penicillium-like mould, Cladosporium, and other identified mould species pose significant health risks, including respiratory issues. Proper	• **Remediation costs:** – Remediating the mould will involve significant costs due to compliance with AS 3666 for microbial control, AS/NZS 4801	Remediating the mould in Building A poses significant challenges to both children's health and the building's heritage significance. The presence of hazardous mould, such as Aspergillus/Penicillium-like

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
	Stachybotrys (black mould) were detected, contributing to the swelling and warping of timber components, which severely compromised the structural integrity of the building. Additionally, Aspergillus/Penicillium-like mould, Cladosporium, and hyphal fragments were found, posing serious health risks, as these mould species are known to be immuno-compromising, allergenic, and/or mycotoxin producers.	remediation, removal, and microbial control must follow appropriate safety guidelines to mitigate these health risks. • **Structural impact:** – Mould contamination, as noted in the ENV Solutions report, requires the removal of affected areas where these hazardous species have taken hold. There is a likelihood of structural damage, especially in timber elements where hyphal fragments were found. Further structural assessment is recommended, but no explicit mention of timber warping or Stachybotrys mould was made in the report. – This replacement process would result in the loss of original materials, impacting the building's heritage integrity. • **Feasibility of remediation:** – Mould has penetrated deeply into the timber, and remediation may be deemed impractical due to the complexity of complying with health and safety regulations. Australian Standard AS 2601 (Demolition of Structures) outlines how deep-seated mould damage requires extensive structural work, raising questions about the feasibility of retaining the building. – The complete replacement of mould-affected timber would result in a substantial loss of the original heritage fabric, further complicating the retention of the building's historical character. • **Ongoing management:**	for worker safety, and AS 4349.3 for timber replacement. Continuous air quality monitoring post-remediation adds to long-term costs, making mould control an expensive and ongoing issue.	mould, Cladosporium, and hyphal fragments, presents serious health risks, including respiratory issues. This necessitates urgent remediation for a safe learning environment. However, the remediation process would involve the removal of mould-affected materials, potentially leading to the loss of key original components, such as timber linings and structural elements, which are integral to the building's heritage value. Replacing these components with modern materials, alongside the required asbestos abatement, would compromise the authenticity and historical integrity of the structure. This, in turn, could significantly diminish the building's heritage significance.

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
		– Post-remediation, ongoing air quality monitoring will be required to ensure that mould does not return. AS 3666 mandates continuous ventilation and microbial control checks, adding to long-term operational costs. There may also be a need for routine structural inspections and air quality tests to prevent re-infestation, leading to further financial and logistical obligations.		
Compliance with BCA, DDA, and Safety Regulation	MBC Consulting and Pedavoli Architects noted that compliance upgrades would require adding accessible routes, widening doorways, installing ramps, and ensuring toilets meet modern standards, as outlined in the BCA and the DDA.	• **Heritage Impact:** Compliance with Australian Standard AS 1428.1 (Design for Access and Mobility) requires significant modifications such as widening doorways, adding ramps, and retrofitting accessible toilets, all of which would alter the building's original features. These changes would reduce the building's historical integrity and result in the loss of key heritage fabric. • **Structural challenges:** Ensuring compliance with BCA for structural safety (AS/NZS 1170 Structural design actions) would necessitate reinforcing the existing structure, particularly in relation to installing ramps and lifts. This may also require additional support for existing walls, further impacting the building's heritage fabric. • **Feasibility of retrofitting:** Achieving compliance while maintaining heritage integrity would be nearly impossible. The existing structure was not designed for modern accessibility standards, making retrofitting impractical under the scope of both the BCA and the DDA. Additionally, the installation of new elements like lifts would	**Significant costs**: Upgrading access routes, doorways, and facilities to meet modern standards under the BCA and DDA involves high costs. Compliance with Australian Standard AS 1428.1 (for accessibility), AS 1170 (for structural safety), and other relevant standards would require extensive alterations to the existing structure, substantially increasing the project's budget.	Achieving compliance with BCA, DDA, and safety regulations for the existing building would require extensive modifications, including adding ramps, widening doorways, and retrofitting accessible facilities. These changes would significantly alter the building's original features, undermining its heritage integrity by necessitating the removal or modification of key historical elements. Additionally, the structural reinforcements required to meet modern safety standards, such as installing lifts and supporting existing walls, would further impact the building's fabric. Given the high costs of retrofitting to comply with Australian Standards and the practical challenges of maintaining both accessibility and heritage, the modifications would lead to an irreversible loss of heritage significance.

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
		likely damage or obscure significant heritage features.		
Energy efficiency and insulation upgrades	Pedavoli Architects emphasised the need to bring the building to modern energy efficiency standards. This includes replacing outdated windows, upgrading insulation, and installing HVAC systems. However, while these upgrades are essential to comply with current environmental and energy requirements, they carry significant challenges in terms of both heritage and cost.	• **Heritage impact:** Retrofitting or replacing windows and adding insulation would compromise the building's historical aesthetic. – **Window replacement:** Retrofitting or replacing the original windows could significantly alter the building's historical appearance. Maintaining the original aesthetic while incorporating modern, energy-efficient materials is difficult, and compromises to the architectural integrity may be inevitable. – **Insulation upgrades:** Adding insulation could involve modifications to walls and roofs, which would also impact the building's historical features. The changes required to improve energy performance might overshadow the preservation of the original fabric. • **HVAC systems:** Modern HVAC systems need to meet energy efficiency standards but require substantial changes to the internal structure, further affecting the building's heritage elements.	• **Retrofitting costs:** Balancing energy efficiency with heritage preservation is costly, as specialised materials and labour are needed to ensure compliance without damaging the building's historical aesthetic. The labour-intensive nature of these upgrades further increases costs. • **Ongoing maintenance:** Once installed, these systems require regular maintenance to function efficiently while also safeguarding the building's heritage, adding to long-term operational expenses.	While energy efficiency upgrades are essential, they present a significant challenge for heritage preservation. The modifications needed to meet modern standards may detract from the building's original historical value, and balancing heritage preservation with energy compliance remains complex, potentially leading to substantial alterations or loss of historical significance.

Table 3.2 Partial retention as a managed ruin

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
Retaining key heritage elements as a managed ruin	Preserve key architectural features (e.g., façade, structural timbers) for display purposes only.	The building is located in a flood zone, posing a risk of inundation and damage during floods. Retaining elements as a managed ruin reduces practical usage.	Moderate cost for stabilising the structure, but preservation may be difficult due to ongoing flood risks.	Retaining elements as a managed ruin avoids extensive work but risks flood damage, posing a potential safety hazard for children.
Structural stabilisation of preserved parts	Stabilise preserved sections to remain intact and safe for display.	Engineering required to protect the structure from collapse in flood conditions, minimising flood-induced alterations to heritage elements.	Costs for partial reinforcement and flood-resistant stabilisation methods.	Stabilisation can mitigate collapse risks, but flooding poses ongoing structural challenges, increasing costs.
Remediation of hazardous materials	Remove hazardous materials (e.g. asbestos, lead) from preserved sections.	Remediation must account for flood risks, as inundation could spread contaminants, making the area hazardous for children.	High cost for handling hazardous materials and ensuring flood containment, increasing complexity of preservation.	Necessary for safety, but flood risks may reintroduce hazards, complicating preservation and safety efforts.
Ongoing maintenance & monitoring	Regular inspection of preserved sections to prevent further deterioration.	Frequent flooding would necessitate constant inspections for safety. Risk of flooding increases the burden of long-term maintenance and repair.	Ongoing costs for inspections and repairs post-flood events, requiring special flood-mitigation strategies.	Continuous monitoring is essential, but flood hazards create substantial operational and safety challenges, especially for children.

Table 3.3 Option 3 Demolition and rebuild

Scope of works required	Details	Challenges/finds	Cost implications	Conclusion
Demolition of existing structure	Remove the current building entirely to make way for a new structure.	Demolition eliminates heritage value, though modern design can incorporate historical elements.	Estimated demolition cost: $30,000.	Demolition will result in the complete loss of the original structure and its heritage value, but it simplifies future use.
Construction of new building	Build a modern, flood-resilient structure that meets BCA and DDA standards.	A new build offers flexibility in meeting modern compliance standards and functional needs.	Construction costs will vary depending on the design and materials but are likely more predictable and manageable.	Rebuilding will allow compliance with modern regulations, improve functionality, and enhance flood resilience.
Community and social impact	Community meetings indicated no major objections to demolition, though formal social impact assessments are pending.	Losing the heritage structure may affect community identity, though feedback thus far suggests no major resistance to the new build.	Additional costs may arise from consultations and social impact assessments.	Demolition could affect community sentiment and identity due to the loss of heritage, but ongoing consultations are planned.
Incorporation of heritage elements	Integrate certain heritage design aspects into the new structure to maintain a connection to the site's history.	While modern materials may be used, design elements can be included to honour the original aesthetic.	Incorporating heritage design elements could add to construction costs but would help preserve cultural identity.	Some heritage elements may be preserved through design, but the original structure will not be retained.

4 Heritage impact assessment

4.1 Assessment of impacts methodology

When assessing impacts to heritage significance, consideration is given to both direct and indirect impacts of the proposed works on the heritage fabric. The approach is to first identify the cultural heritage sensitivity of the site (i.e. Tumbulgum Public School), and then assess the magnitude of changes induced by the proposed works (i.e. demolition of heritage buildings). To facilitate a robust, defensible and consistent approach, the potential impacts on the heritage values are assessed using criteria developed from the *Guidance on Heritage Impact Assessments for Cultural World Heritage Properties* (ICOMOS 2011). This document was prepared by the International Council on Monuments and Sites (ICOMOS), the peak professional body working for the conservation of cultural heritage places and provides a comprehensive method for assessing impacts at all types of heritage places.

The levels of cultural heritage sensitivity can be determined based on the heritage significance levels provided in Table 4.1. For instance, Tumbulgum Public School meets the threshold for local significance, indicating a moderate sensitivity, particularly due to its historical significance within the community and its structural significance.

Table 4.1 Levels of cultural heritage sensitivity

Sensitivity	Justification	Status
Extreme	Attributes which convey Outstanding Universal Values of World Heritage Place	Fulfills criteria for local, state, national and international listing
Very high	Exceptional, rare or outstanding attributes demonstrating important themes in national or international history and heritage	Fulfills criteria for local, state, national or potentially international listing
High	Attributes demonstrating important themes in state history and heritage	Fulfills criteria for local and state listing
Moderate	**Attributes demonstrating important themes in local history and heritage**	**Fulfills criteria for local listing and may fulfill criteria for state listing**
Low	Attributes demonstrating minor themes in local history and heritage	May fulfill criteria for local listing and does not fulfill criteria for state listing
Negligible	Attributes that have no heritage significance	Does not fulfill criteria for local or state listing

Source: (ICOMOS 2011)

The degree of impact an activity will have on a heritage place is assessed in terms of the magnitude of change to the acknowledged heritage significance of a place as summarised in Table 4.1. These impacts may be direct, such as the demolition of heritage buildings, or indirect, such as changes to the views or setting of a heritage place. In some cases, indirect impacts might also cause physical damage to a heritage place, such as excessive vibration causing structural damage, or excessive pollution causing damage to surfaces.

Table 4.2 Determining magnitude of change

Magnitude	Example criteria
Major	Change to all or most significant aspects of the place, such that its heritage values are substantially reduced or destroyed.
Medium	Change to some significant aspects of the place, such that some of its heritage values are partially reduced.
Low	Minor change to significant aspects of the place, such that some of its heritage values are slightly reduced.
Negligible	Changes to insignificant aspects of the places, such that its heritage values are not reduced
No change	No change

Source: (ICOMOS 2011)

The final assessment of the significance of impact on a heritage place is a factor of the cultural heritage sensitivity of the place, combined with the predicted magnitude of change, as outlined in Table 4.2. A prediction of impact significance can be made both before and after the implementation of identified mitigation measures, allowing the efficacy of the measures to be assessed and revealing residual impacts that need to be taken into account.

Table 4.3 Estimating impact significance

Significance of impact		Magnitude of change				
		Major	Medium	Low	Negligible	No change
Cultural heritage sensitivity	Extreme	Very large	Large/ very large	Moderate/ large	Slight	Neutral
	Very high	Very large	Large/ very large	Moderate/ large	Slight	Neutral
	High	Large/ very large	Moderate/ large	Slight/ moderate	Slight	Neutral
	Moderate	**Moderate/ large**	Moderate	Slight	Neutral/slight	Neutral
	Low	Slight/ moderate	Slight	Neutral/slight	Neutral/slight	Neutral
	Negligible	Slight	Neutral/slight	Neutral/slight	Neutral	Neutral

Source: (ICOMOS 2011)

4.2 Matters for consideration – demolition

This report separates the matters for consideration between the demolition and the new build to enhance clarity. Section 4.2 outline the considerations for demolition:

4.2.1 Fabric and spatial arrangements

The impact on the fabric of Building A is classified as having a large heritage impact with a major magnitude of change. Building A at Tumbulgum Public School retains early architectural elements, including weatherboard construction, traditional materials, and design dating from 1891. These elements are connected to the heritage

significance of the site, reflecting early twentieth century rural school typology within Tumbulgum. The placement of the building in relation to other structures demonstrates the physical growth of the school and its role in the broader educational development of the region.

The proposed demolition will result in the total loss of Building A's original fabric, a key component of the site's historical significance (Plate 3.1). The Burra Charter Article 15 (Conservation Processes Change and Adaption) advises that change should not adversely affect the heritage significance of a place and that retaining as much of the fabric as possible is essential to preserving significance. However, Section 3.2.2 has outlined the options analysis undertaken that has determined that retention is impractical due to the challenges associated with raising the building to meet flood resilience standards and asbestos and lead contamination. Despite the building's historical significance, the choice of Option 3—demolition and rebuilding—remains the only practical solution to ensure safety, compliance with modern standards, and cost-effectiveness.

The demolition will also impact the spatial arrangement of the site, disrupting the historic layout and compromising the integrity of the school's historical context. This loss of spatial continuity will diminish the site's ability to convey its historical narrative. Retaining the building would involve exorbitant costs and structural modifications, significantly impacting its integrity. Therefore, Option 3 allows for a flood-resilient structure that meets current requirements while incorporating heritage design elements to maintain a connection to the site's historical context.

4.2.2 Setting, views and vistas

The removal of Building A from the Tumbulgum will have a large heritage impact on the visual setting and historic character of the area with a major magnitude of change (Plate 3.1). As the oldest surviving element of the town's educational landscape, its demolition will disrupt the visual continuity and diminish the interpretation of the area's historical development. According to Article 8 (Setting) of the Burra Charter the setting of a heritage place is integral to its significance, and changes to that setting must be managed carefully to preserve its heritage values. However, as outlined in Section 3.2.2, the options analysis determined that retaining or raising Building A is impractical due to asbestos and lead contamination, and the high costs associated with necessary repairs and compliance upgrades. These factors not only pose significant safety risks but also diminish the building's overall heritage significance, making demolition the most viable option to ensure safety and adherence to modern standards while mitigating long-term financial and operational challenges.

The demolition of Building A will remove a key element of the historic landscape that has long contributed to the fabric of the Tumbulgum and this visual loss will weaken the connection between the school and the broader community. Nonetheless, Option 3—demolish and rebuild—provides a more feasible path forward, ensuring a flood-resilient structure that meets modern standards. Incorporating heritage design elements into the new building can help preserve a link to the site's historical context, even as the spatial and visual continuity changes.

4.2.3 Landscape

The *Arboricultural Impact Assessment* (Northern Tree Care, 2024) identifies specific trees, including Leopardwood (Tree #95), African Tulip (Tree #109 and Tree#110), Rainforest (Tree #60, #68, #69) Teak (Tree #111) Rainforest (Tree #190) and: Alexander Palm (Tree #191) for removal (Plate 3.7). In addition, it has been noted that a tree of social significance, a descendant of the original Aleppo, 'Lone Pine' from Gallipoli, is located on the subject site and was dedicated to the ANZACs. The tree is in poor condition due to the subtropical climate it is situated in and has been recommended for removal by the arborist (Photograph 1.26). This is assessed to have a slight heritage impact with a low magnitude of change.

Trees, including, Weeping Fig (Tree #94), Paperbark (Tree #96), and Camphor Laurel (Tree #1112), will require pruning to accommodate construction. However, this will not compromise the viability of any of the trees, resulting in a neutral heritage impact with a negligible magnitude of change.

While the removal of certain trees and Building A is necessary for the new development, Article 1.11 (Adaption) of the Burra Charter emphasises the importance of preserving the relationship between the built environment and its landscape to retain the site's cultural significance. In line with this, threatened species will be translocated, andheritage elements will be incorporated into the new design, ensuring a balance between heritage preservation and modern needs.

4.2.4 Use

The proposed demolition of Building A, considering its historical use, is classified as having a large impact on heritage significance, with a major magnitude of change. Since its construction in 1891, Building A has functioned as an educational facility, contributing to the public education system in rural NSW and its role in meeting the educational needs of the growing local population.

The proposed demolition will result in the cessation of the early educational use of Building A, which is a key aspect of the building's heritage significance. Although the school will continue to operate in new facilities, the removal of Building A will disrupt the historical continuity of its use, as outlined in Burra Charter Article 7 (Use), which notes the retention of original use when feasible.

4.2.5 Demolition

The proposed demolition of Building A will have a large impact, with a major magnitude of change on the site's heritage significance (Plate 3.1). As an item that fulfills the criteria of local heritage significance, Building A has played a role in the historical development of education in the region and the town's growth, making its removal a major change to the heritage fabric of the area. However, despite its historical significance, the building's asbestos and lead contamination, along with the high costs of necessary repairs and compliance upgrades, make demolition the only practical solution. The extensive structural modifications required would compromise the building's integrity, rendering preservation unfeasible.

While the demolition is necessary, the Burra Charter Article 27 (Managing Change) states that such changes should be managed carefully to minimise loss of significance. The complete loss of original fabric, which is fundamental to the building's heritage significance, is unavoidable given the impracticality of the alternative solutions outlined in Section 3.2.2. Option 3—demolish and rebuild—offers the most viable path forward, providing a modern, flood-resilient building that meets BCA and DDA standards, while allowing for heritage design elements to preserve a connection to the site's historical context.

4.2.6 Curtilage

The curtilage of Building A at Tumbulgum Public School refers to the land (i.e., the Lot and DP) immediately surrounding the building, which is integral to defining its heritage significance. This area contributes to the building's historical and visual context. Therefore, if the item were to be listed, its curtilage would be defined by the Lot and DP.

Once Building A is demolished, its heritage significance will be lost. As a result, the curtilage associated with Building A, as outlined by the physical boundaries on the site map (Plate 3.1), will be effectively removed. Consequently, the proposed works at Tumbulgum Public School will have a large impact on the site's heritage significance, with a major magnitude of change due to the loss of both the building and its contributing curtilage.

4.2.7 Moveable and non-moveable heritage and items of non-heritage social significance

The proposed development will have a moderate impact on the heritage significance, with a moderate magnitude of change to the heritage and socially significant items within the Tumbulgum Public School site. These items include the Ian Buckley Rainforest memorial plaque (Photograph 1.5), school sign and bell

(Photograph 1.7), painted elevations (Photograph 1.6), ANZAC Aleppo Pine memorial tree and memorial plaque (Photograph 1.8), Memorial garden signs (Photograph 1.9) and interpretation panel (Photograph 1.10). As part of the development, the moveable items of heritage significance will be conserved and integrated into the new school building's interior design (where appropriate) to maintain their historical connection to the school. Additionally, the moveable items of non-heritage social significance will be relocated to prominent position within the new facilities, ensuring students and staff can continue to view and appreciate these significant items.

In contrast, non-moveable items of non-heritage social significance, such as the artworks on the surrounding buildings elevations and the Aleppo Pine, will be archivally recorded and indexed to capture their current condition and context prior to demolition.

4.2.8 Aboriginal cultural heritage

There are no known Aboriginal cultural heritage items or sites associated with Building A or within the immediate vicinity of the school grounds. An Aboriginal Due Diligence Report has been prepared for the project.

4.2.9 Historical archaeology

The archaeological heritage significance and impact of the site has been assessed in a separate Historical Archaeology Assessment report prepared by EMM and is outside the scope of this SoHI. The following summary of findings should be read in conjunction with that report (EMM Consulting Pty Ltd, 2024).

Through documentary research, the school may hold potential for archaeological resources, although this has been assessed as low. These archaeological resources, if realised, will likely to be highly disturbed but could hold the potential to meet the threshold for local significance for relics under the *Heritage Act 1977*.

4.2.10 Natural heritage

There is no natural heritage values associated with Tumbulgum Public School. No impact is identified under this matter for consideration.

4.2.11 Conservation areas

The demolition of Building A, in view of the Tumbulgum HCA, 76 m west of the subject site, is expected to have a slight visual impact on the heritage significance of the area. While the change is considered to have a major magnitude, it will only slightly affect the continuity, coherence, and overall historical character of the area. As per the NSW Heritage Office and Department of Urban Affairs and Planning's *Conservation areas: guidelines for managing change in heritage conservation areas* (New South Wales. Department of Urban Affairs and Planning), 1996) and Article 27 (Managing Change) of the Burra Charter, changes to heritage places within or in view of conservation areas should be carefully managed to retain their significance. The removal of Building A represents a significant alteration to the local heritage context, resulting in a slight but unavoidable change to the character and integrity of the area surrounding the Tumbulgum HCA.

4.2.12 Cumulative impacts

The cumulative impacts of demolishing Building A, along with other proposed changes to the school grounds, will significantly affect the site. These changes include tree removals and the construction of new elevated, flood-resilient buildings. Together, they will result in a major magnitude of change, greatly impacting the historical landscape of the site. Each individual action may not appear substantial, but together, they will reduce the integrity and visual continuity of the site.

4.2.13 The conservation management plan

There are no conservation management plans associated with Tumbulgum Public School. EMM have instead made reference to the Burra Charter (Australia ICOMOS, 2013).

4.2.14 Other heritage items in the vicinity

Impacts to direct site lines to and from the Tumbulgum HCA has been assessed in Section 4.2.11. There are no sightlines to the surrounding heritage items mentioned in Section 1.1.2 and no impacts are noted.

4.2.15 Commonwealth/National heritage significance or World Heritage significance

The proposed works will not impact items on the Commonwealth Heritage List or National Heritage List as there are none in the vicinity.

4.3 Matters for consideration – new build

This report separates the matters for consideration between the demolition and the new build to enhance clarity. Section 4.3 outline the considerations for demolition:

4.3.1 Fabric and spatial arrangements

The proposed fabric and spatial arrangements of the new development at Tumbulgum Public School will have a slight impact on the heritage significance on the heritage significance of surrounding historical context and the adjoining Tumbulgum HCA, resulting in a moderate magnitude of change. The design preserves the school's open layout while incorporating modern elements (Plate 3.3, Plate 3.5 and Plate 3.6). The design aligns with the existing narrow lot subdivisions and setback patterns, maintaining continuity with the site's historical context. By following these historical precedents, it offers a sympathetic response to the village-scale character, preserving the coherence of the surrounding area.

The proposed use of corrugated metal roofing, timber simulation cladding, and a sympathetic colour palette in the new design references the architectural elements of the area, particularly the timber cladding and corrugated iron roof of Building A (Plate 3.3, Plate 3.5 and Plate 3.6).

Following the principles set out in the *Design in Context: Guidelines for Infill Development in the Historic Environment* (New South Wales Heritage Office & Royal Australian Institute of Architects, 2005), the proposed design materials (Plate 3.2, Plate 3.5 and Plate 3.6) reinforce the rural vernacular style of the schoolhouse and nearby residential context, ensuring that the new development responds sympathetically to the existing aesthetic characteristics of the site (Photograph 1.1, Photograph 1.2, and Photograph 1.3). Traditional detailing, such as timber screening, references surrounding buildings, reinforcing the historical character of the area. This approach reflects the principles of the Burra Charter Article 22 (New Work), which advocates for the use of materials and construction methods that respect heritage significance while accommodating modern needs.

4.3.2 Setting, views and vistas

The proposed development at Tumbulgum Public School presents a slight impact on the setting, views, and vistas of surrounding village context and the adjoining Tumbulgum HCA, with a moderate magnitude of change with a as viewed from Bawden and Fawcett Street (Plate 3.6). The design integrates the natural landscape and village character of Tumbulgum, in accordance with Burra Charter Article 1.2 (Place), showing respect for the surrounding context (Plate 3.9). It incorporates viewing platforms and architectural elements, such as solid-to-void ratios, to maintain visual continuity with key heritage features, including the sugar can field and distant mountain ranges to the east (Figure 1.2).

The new elevated school building responds sympathetically to the neighbouring structures as there is precedent in the area for elevating buildings above the flood level. The construction of the new elevated school building, with a minimum habitable floor level above the 1 in 500-year AEP flood event, enhances flood resilience and creates functional undercroft spaces. Despite changes to the site's arrangement, the use of sensitive materials and considered spatial design ensures that the new structure contributes positively to the existing heritage context.

4.3.3 Landscape

The proposed landscaping works at Tumbulgum Public School present a neutral to slight impact on the significance of the surrounding context and the adjoining Tumbulgum HCA, with a negligible magnitude of change, as viewed from the ground and the raised levels of streetscapes. Significant trees will be retained, and their TPZs will be maintained to preserve their visual and ecological value (Plate 3.8) This preservation, especially along the Bawden and Fawcett Street reinforces the school's connection to its natural surroundings and the broader values of the Tumbulgum HCA (Plate 3.8 and Plate 3.9).

The retention of large trees along the boundaries, in collaboration with an arborist, aims to retain visual continuity with the surrounding landscape. New plantings will include species with documented traditional uses by the Bundjalung people, enhancing both biodiversity and cultural significance. The selected native species are based on planting lists designed to support the restoration of the area's Endangered Ecological Communities (EECs) and align with the *Tweed Shire Council Native Species Planting Guide* (Tweed Council, 2024) (Plate 3.9).Key cultural elements in the landscape design, such as the Yarning Circle and Bush Tucker plantings, support initiatives for connecting to Country, fostering cultural learning and community engagement. Additionally, buffer plantings along the northern boundary will create a visual barrier between the school and neighbouring residences, without obstructing significant views to the Tumbulgum HCA.

The design also incorporates functional outdoor spaces such as open play areas, which enhance both the educational environment and students' interaction with the natural landscape, ensuring minimal impact on the visual integrity of the area as per Burra Charter Article 8 (Setting).

4.3.4 Use

The proposed works at Tumbulgum Public School are expected to have a neutral impact on the heritage significance, with no significant magnitude of change, as the proposal maintains the sites historical educational function. The proposed development at Tumbulgum Public School introduces new facilities and outdoor spaces, aligning with the Burra Charter Article 23 (Retaining or Reintroducing Use), which highlights the importance of retaining the original use of a heritage site where feasible.

4.3.5 Demolition

The proposed demolition works are assessed in Section 4.2.5.

4.3.6 Curtilage

The proposed works at Tumbulgum Public School result in no significant change to the school's curtilage, resulting in a neutral impact on the curtilage.

4.3.7 Moveable and non-moveable heritage and items of social significance

The proposed works for moveable and non-moveable heritage items and items of social significance have been assessed in 4.2.7.

4.3.8 Aboriginal cultural heritage

There are no known Aboriginal cultural heritage items or sites associated with Building A or within the immediate vicinity of the school grounds. An Aboriginal Due Diligence Report has been prepared for the project.

4.3.9 Historical archaeology

The impacts of the proposed additions to areas of historical archaeology remain consistent with those outlined in Section 4.2.9.

4.3.10 Natural heritage

There are no natural heritage values associated with Tumbulgum Public School.

4.3.11 Conservation areas

The proposed development at Tumbulgum Public School is anticipated to have a slight impact to the adjoining Tumbulgum HCA with a moderate magnitude of change. The design integrates with the existing rural residential landscape, resulting in minimal disruption to the area's heritage significance. Key measures include adherence to the TLEP 2014 height restrictions, ensuring the new structures align with the scale and proportions of surrounding buildings, preventing significant visual disruption. Additionally, the design respects the scale and setting of the Bawden and Fawcett streetscapes, preserving the visual aesthetics of the adjoining HCA (Plate 3.2 to Plate 3.6).

The landscaping plan supports the integration of the new development by retaining significant trees and incorporating additional plantings to visually blend the structures into the existing landscape. This approach maintains the streetscape and reduces the perceived impact of the development on the significance of the surrounding area (Plate 3.8 to Plate 3.9)

4.3.12 Cumulative impacts

The proposed demolition of Building A and the proposed construction of the new elevated school building will have a large impact on the site’s heritage significance with a major magnitude of change. This has been managed by incorporating design elements inspired by Building A and the surrounding residential buildings.

4.3.13 The conservation management plan

There are no conservation management plans associated with Tumbulgum Public School or Tumbulgum HCA.

4.3.14 Other heritage items in the vicinity

Impacts to direct site lines to and from the Tumbulgum HCA has been assessed in Section 4.2.11. There are no sightlines to the surrounding heritage items mentioned in Section 1.1.2 ; and no impacts are noted.

4.3.15 Commonwealth/National heritage significance or World Heritage significance

The proposed works will not impact items on the Commonwealth Heritage List or National Heritage List.

Table 4.4 presents a summary of the magnitude of change and the impact on significance resulting from the proposed demolition and additions.

Table 4.4 Summary of impacts

Matters for consideration	Demolition	Addition
	Magnitude of change and impact	Magnitude of change and impact
Fabric and spatial arrangement	Large impact with a major magnitude of change.	Slight impact with a moderate magnitude of change.
Setting views and vistas	Large impact with a major magnitude of change.	Slight impact with a moderate magnitude of change.
Landscape	Slight impact with a low magnitude of change.	Neutral/slight impact with a negligible magnitude of change.
Use	Large impact with a major magnitude of change.	Neutral
Demolition	Large impact with a major magnitude of change.	
Curtilage	Large impact with a major magnitude of change.	Neutral
Moveable and non-moveable heritage and items of social significance	Moderate impact with a moderate magnitude of change.	
Conservation areas	Slight impact with a major magnitude of change.	Slight impact with a moderate magnitude of change.
Cumulative impacts	Large impact with a major magnitude of change.	

5 Summary and recommendations

The proposed demolition of Building A at Tumbulgum Public School is the most practical option due to significant challenges, including its location below flood level, and asbestos and lead contamination. Retaining and raising the building (Option 1) would result in a considerable loss of heritage fabric and incur prohibitive costs, making it impractical. The structural modifications needed to meet flood standards and the removal of hazardous materials would severely diminish the building's historical significance.

Option 2, preserving the building as a managed ruin, was also dismissed due to its location in a flood zone, which would require costly stabilisation and flood-resistant measures. The ongoing risks posed by hazardous materials, combined with the high costs of long-term maintenance and flood damage repairs, further make this option unviable.

With this said, it is understood that the removal of Building A will have a large heritage impact on the site's fabric, spatial arrangements, and historical significance, with a major magnitude of change. The early architectural elements, including the 1891 weatherboard construction, which is significant to the school's heritage. However, raising the building to meet flood standards is impractical. The total loss of fabric is unavoidable with demolition, but incorporating heritage design elements into the new structure will help maintain a connection to the site's historical context. The removal of Building A will also result in a major magnitude of change to the setting and views, disrupting the visual continuity of the area. Despite these impacts, demolition is the most feasible option due to the high costs and safety risks associated with retaining and elevating the building.

The removal of trees such as the ANZAC Lone Pine Leopardwood (Tree #95), African Tulip (Tree #109 and Tree#110), Rainforest (Tree #60, #68, #69) Teak (Tree #111) Rainforest (Tree #190) and: Alexander Palm (Tree #191) will alter the landscape of the site, though its historical function as a school remains unchanged. This is assessed to have a slight heritage impact with a low magnitude of change. Additionally, the pruning of three trees will not affect their viability, resulting in a neutral heritage impact with a negligible magnitude of change.

The demolition represents a large heritage impact with a major magnitude of change. Despite the historical value of Building A, safety concerns and the high costs of repair make demolition the most practical solution. Although the building will be lost, the site will continue to serve its educational purpose. The new structure will uphold the school's role in the local public education system and maintain its historical association with the Tumbulgum HCA. By incorporating design elements from the original building, a connection to the past will be preserved, ensuring that the site's educational significance remains intact.

The demolition will have a large heritage impact on the curtilage and setting with a major magnitude, severing the physical and visual relationship between Building A and surrounding structures, affecting how the site is interpreted. The moderate heritage impact resulting from the moderate magnitude of change to moveable and non-moveable heritage items, such as the school sign and bell, will be mitigated by conserving and integrating these items into the new building's design.

Additionally, the new development will have minimal impact on the adjoining Tumbulgum HCA, located 76 m to the west. The assessment of the new build outlines several key impacts on the site's heritage and context. The fabric and spatial arrangements of the new development will result in a slight impact on the heritage significance of the area and the nearby Tumbulgum HCA, with a moderate magnitude of change. The design will introduce modern elements while preserving the open layout and aligning with existing subdivisions, maintaining historical continuity. Using sympathetic materials, such as corrugated metal roofing and timber simulation cladding, the new structure will respect the site's rural character.

The setting, views, and vistas will experience a slight heritage impact, with a moderate magnitude of change with the new structure integrating into the natural landscape and village character. Elevated construction will improve flood resilience, and sensitive design choices, such as solid-to-void ratios and viewing platforms, will ensure visual continuity with key heritage features like nearby sugar cane fields and distant mountain ranges.

In terms of landscape, the proposed works are expected to have a neutral to slight heritage impact with a negligible magnitude of change. Significant trees will be retained, and additional plantings will enhance the area's biodiversity and cultural significance. The design will incorporate functional outdoor spaces, including play areas and a Yarning Circle, fostering community engagement and a connection to the natural landscape.

A set of management measures has been formulated to effectively manage and mitigate these identified adverse impacts:

- **MANAGEMENT MEASURE 1:** Prior to commencing project-related work, including site establishment fencing and the like, and upon its completion, an archival recording of Building A should be created, capturing significant views and vistas from within the subject site and the adjoining Tumbulgum HCA. This recording should also include documentation of the identified moveable heritage item (The school sign and bell). The archival process should involve high-resolution photographs, detailed descriptions to document the building's architectural elements, spatial context, and surrounding landscape. This is to be undertaken in adherence to the guidelines outlined in *How to prepare archival records of heritage items, from the Heritage Information Series of the NSW Heritage Office, 1991* and the *Photographic Recording of Heritage Items Using Film or Digital Capture* (NSW Heritage Office 2006).

- **MANAGEMENT MEASURE 2:** The school sign and bell must be carefully removed under the guidance of a suitably qualified heritage professional before demolition begins. All necessary de-installation, repairs, and reinstatement measures should be undertaken under the direction of a qualified heritage consultant or conservator, following best practice heritage conservation standards. Once stabilised, the school sign and bell must be stored in a secure, low-traffic location on-site. A designated secure area, such as a ventilated shipping container, should be established to protect it from potential damage during construction. The Construction Environmental Management Plan (CEMP) will include detailed documentation to ensure its proper reinstatement upon project completion. Sympathetic integration of the Honour Roll into the new development should be considered to preserve its accessibility and visibility.

  It should be noted that the 'non-heritage social significance' items listed in Table 1.5 are not required to be conserved, but the school should be given the opportunity to retain these items if they wish.

- **MANAGEMENT MEASURE 3:** A salvage and reuse methodology must be implemented to retain valuable, non-hazardous building materials and architectural elements from the heritage building for future use. Demolition works for Building A are to be supervised by a heritage consultant and guided by a salvageable reuse register. Heritage items unaffected by flooding and not designated for interpretation are to be carefully catalogued under the heritage consultant's direction and made available for SINSW to reuse as deemed appropriate.

- **MANAGEMENT MEASURE 4:** A Heritage Interpretation Plan and Strategy must be prepared by a qualified heritage specialist, with a focus on interpreting the historical significance of the site, particularly the original schoolhouse adjoining the Tumbulgum HCA. The strategy should be developed in collaboration with heritage experts, the Parents and Citizens' Association, and school leadership to foster a deeper understanding and appreciation of the site's heritage.

  The Heritage Interpretation Strategy should guide the implementation of interpretive installations and content, incorporating historical records and community insights to establish a meaningful connection to the site's history. These installations should reflect the architectural and historical importance of the schoolhouse, emphasising its significance within the broader Tumbulgum village.

  The Heritage Interpretation Plan should ensure that interpretive content is thoughtfully placed to be visible and accessible, particularly from the streetscape, to enhance public engagement. Interpretive elements may include signage, digital media, public art, and other storytelling forms.

This plan should contribute to preserving the heritage fabric while strengthening the local community's connection to the site's history, fostering long-term protection and educational opportunities. It must align with the *ICOMOS Charter for the Interpretation and Presentation of Cultural Heritage Sites* (ICOMOS, 2008), *Heritage Interpretation Policy* (NSW Heritage Office, 2005) and *Interpreting Heritage Places and Items: Guidelines* (Heritage Council of NSW, 2005).

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Appendix A

Preliminary Heritage Design Advice

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Appendix B

Project team's input on RFIs

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Appendix C
Community Consultation

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